

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

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OPINION 450

Suppression under the Plenary Powers of the generic name *Phalaena* Linnaeus, 1758, and validation as of subgeneric status (a) as from 1758, of the terms *Bombyx*, *Noctua*, *Geometra*, *Tortrix*, *Pyralis*, *Tinea*, and *Alucita* as used by Linnaeus for groups of species of the genus *Phalaena* and (b) as from 1767 of the term *Attacus* similarly published by Linnaeus and matters incidental thereto (Class Insecta, Order Lepidoptera)

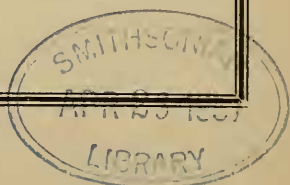
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 450

SUPPRESSION UNDER THE PLENARY POWERS OF THE GENERIC NAME "PHALAENA" LINNAEUS, 1758, AND VALIDATION AS OF SUBGENERIC STATUS (a) AS FROM 1758, OF THE TERMS "BOMBYX", "NOCTUA", "GEOMETRA", "TORTRIX", "PYRALIS", "TINEA" AND "ALUCITA", AS USED BY LINNAEUS FOR GROUPS OF SPECIES OF THE GENUS "PHALAENA" AND (b) AS FROM 1767 OF THE TERM "ATTACUS" SIMILARLY PUBLISHED BY LINNAEUS AND MATTERS INCIDENTAL THERETO (CLASS INSECTA, ORDER LEPIDOPTERA)

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

- (a) The generic name *Phalaena* Linnaeus, 1758, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.
- (b) Under the procedure laid down in the Ruling given in *Opinion* 124, (i) the names specified in Column (1) below are hereby validated as having the status of subgeneric names as from Linnaeus (1758), by whom they were published as terms denoting groups of species within the genus *Phalaena* Linnaeus, 1758, (ii) the nominal species specified in Column (2) below are hereby designated to be the type species of the nominal genera severally shown in Column (1), and (iii) it is hereby directed that the family-group

names to be used for the genera severally specified in Column (1) shall be the names specified in each case in Column (3) :—

<i>Generic name now validated under the Plenary Powers</i>	<i>Nominal species now designated under the Plenary Powers to be the type species of the corresponding nominal genus specified in Column (1)</i>	<i>Family-group name which under the Plenary Powers is to be used for the corresponding nominal genus specified in Column (1)</i>
(1)	(2)	(3)
(1) <i>Bombyx</i> Linnaeus, 1758	<i>Phalaena mori</i> Linnaeus, 1758	BOMBYCIDAE
(2) <i>Noctua</i> Linnaeus, 1758	<i>Phalaena pronuba</i> Linnaeus, 1758	NOCTUIDAE
(3) <i>Geometra</i> Linnaeus, 1758	<i>Phalaena papilionaria</i> Linnaeus, 1758	GEOMETRIDAE
(4) <i>Tortrix</i> Linnaeus, 1758	<i>Phalaena viridana</i> Linnaeus, 1758	TORTRICIDAE
(5) <i>Pyralis</i> Linnaeus, 1758	<i>Phalaena farinalis</i> Linnaeus, 1758	PYRALIDAE
(6) <i>Tinea</i> Linnaeus, 1758	<i>Phalaena pellionella</i> Linnaeus, 1758	TINEIDAE
(7) <i>Alucita</i> Linnaeus, 1758	<i>Phalaena hexadactyla</i> Linnaeus, 1758	ALUCITIDAE

(c) Under the procedure specified in (b) above, as extended by the Ruling given in *Opinion* 279, (i) the term *Attacus*, as published by Linnaeus in 1767 to denote a group of species within the genus *Phalaena* Linnaeus, 1758, is hereby validated as having the status of a subgeneric name as from Linnaeus, 1767 and (ii) the nominal species *Phalaena atlas* Linnaeus, 1758, is hereby designated as the type species of *Attacus* Linnaeus, 1767, as validated under (i) above.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Bombyx* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(1) above (gender : masculine) (type species, by designation under the Plenary Powers under (1)(b)(1) above : *Phalaena mori* Linnaeus, 1758) (Name No. 1056) ;
- (b) *Noctua* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(2) above (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(2) above : *Phalaena pronuba* Linnaeus, 1758) (Name No. 1057) ;
- (c) *Geometra* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(3) above (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(3) above : *Phalaena papilionaria* Linnaeus, 1758) (Name No. 1058) ;
- (d) *Tortrix* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(4) above (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(4) above : *Phalaena viridana* Linnaeus, 1758) (Name No. 1059) ;
- (e) *Pyralis* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(5) above (gender : feminine) (type species, by designation under the

- Plenary Powers under (1)(b)(5) above : *Phalaena farinalis* Linnaeus, 1758) (Name No. 1060) ;
- (f) *Tinea* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(6) above (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(6) above : *Phalaena pellionella* Linnaeus, 1758) (Name No. 1061) ;
- (g) *Alucita* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b)(7) above (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(7) above : *Phalaena hexadactyla* Linnaeus, 1758) (Name No. 1062) ;
- (h) *Attacus* Linnaeus, 1767, as validated under the Plenary Powers under (1)(c) above (gender : masculine) (type species, by designation under the Plenary Powers under (1)(c) above : *Phalaena atlas* Linnaeus, 1758) (Name No. 1063).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *mori* Linnaeus, 1758, as published in the combination *Phalaena mori* (specific name of type species of *Bombyx* Linnaeus, 1758) (Name No. 1131) ;
- (b) *pronuba* Linnaeus, 1758, as published in the combination *Phalaena pronuba* (specific name of type species of *Noctua* Linnaeus, 1758) (Name No. 1132) ;
- (c) *papilionaria* Linnaeus, 1758, as published in the combination *Phalaena papilionaria* (specific name of type species of *Geometra* Linnaeus, 1758) (Name No. 1133) ;
- (d) *viridana* Linnaeus, 1758, as published in the combination *Phalaena viridana* (specific name of type species of *Tortrix* Linnaeus, 1758) (Name No. 1134) ;

- (e) *farinalis* Linnaeus, 1758, as published in the combination *Phalaena farinalis* (specific name of type species of *Pyralis* Linnaeus, 1758) (Name No. 1135) ;
- (f) *pellionella* Linnaeus, 1758, as published in the combination *Phalaena pellionella* (specific name of type species of *Tinea* Linnaeus, 1758) (Name No. 1136) ;
- (g) *hexadactyla* Linnaeus, 1758, as published in the combination *Phalaena hexadactyla* (specific name of type species of *Alucita* Linnaeus, 1758) (Name No. 1137) ;
- (h) *atlas* Linnaeus, 1758, as published in the combination *Phalaena atlas* (specific name of type species of *Attacus* Linnaeus, 1767) (Name No. 1138).

(4) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Phalaena* Linnaeus, 1758, as suppressed under the Plenary Powers under (1)(a) above (Name No. 850) ;
- (b) *Geometra* Paetel, 1875 (an Erroneous Subsequent Spelling for *Geomitra* Swainson, 1840, and a junior homonym of *Geometra* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b) above) (Name No. 851) ;
- (c) *Noctua* Linnaeus, 1764 (a *nomen nudum*) (Name No. 852) ;
- (d) *Noctua* Gmelin (S.G.), 1771 (a junior homonym of *Noctua* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b) above (Name No. 853) ;

- (e) *Orneodes* Latreille, 1796 (a junior objective synonym of *Alucita* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b) above (Name No. 854) ;
- (f) *Tinaea* Geoffroy (E.L.), 1762 (a name published in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 228 ; a junior objective synonym of *Tinea* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b) above) (Name No. 855) ;
- (g) *Tinea* Griffith, 1897 (an Erroneous Subsequent Spelling for *Taenia* Linnaeus, 1758 ; a junior homonym of *Tinea* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b) above) (Name No. 856) ;
- (h) *Tortrix* Oppel, 1811 (a junior homonym of *Tortrix* Linnaeus, 1758, as validated under the Plenary Powers under (1)(b) above) (Name No. 857).

(5) The under-mentioned family-group names, as validated under the Plenary Powers in (1)(b) above, are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) BOMBYCIDAE (correction of BOMBYCIDES) Latreille, [1802—1803] (type genus : *Bombyx* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(1) above) (Name No. 135) ;
- (b) NOCTUIDAE (correction of NOCTUAEALITES) Latreille, 1809 (type genus : *Noctua* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(2) above) (Name No. 136) ;
- (c) GEOMETRIDAE (correction of GEOMETRIDA) [Leach], [1815] (type genus : *Geometra* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(3) above) (Name No. 137) ;

- (d) TORTRICIDAE (correction of TORTRICES) Latreille, [1802—1803] (type genus : *Tortrix* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(4) above) (Name No. 138) ;
- (e) PYRALIDAE (correction of PYRALITES) Latreille, 1809 (type genus : *Pyralis* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(5) above) (Name No. 139) ;
- (f) TINEIDAE (correction of TINEITES) Latreille, 1810 (type genus : *Tinea* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(6) above) (Name No. 140) ;
- (g) ALUCITIDAE (correction of ALUCITIDES) [Leach], [1815] (type genus : *Alucita* Linnaeus, 1758, as validated under the Plenary Powers in (1)(b)(7) above) (Name No. 141).

(6) The under-mentioned family-group name, as validated under the Plenary Powers in (1)(c) above, is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 142 :—

ATTACIDAE Burmeister, 1878 (type genus : *Attacus* Linnaeus, 1767, as validated under the Plenary Powers in (1)(c) above).

(7) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) BOMBYCIDES Latreille, [1802—1803] (an Invalid Original Spelling for BOMBYCIDAE) (Name No. 128) ;
- (b) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for BOMBYCIDAE :—
- (i) BOMBYCITES Latreille, 1809 (Name No. 129) ;
- (ii) BOMBYXIA Rafinesque, 1815 (Name No. 130) ;

- (iii) BOMBYCODEA Burmeister, 1837 (Name No. 131) ;
- (iv) BOMBYCES Horsfield & Moore, [1838—1839] (Name No. 132) ;
- (c) NOCTUAE LITES Latreille, 1809 (an Invalid Original Spelling for NOCTUIDAE) (Name No. 133) ;
- (d) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for NOCTUIDAE :—
 - (i) NOCTUIDA [Leach], [1815] (Name No. 134) ;
 - (ii) NOCTUAEIDES Billberg, 1820 (Name No. 135) ;
 - (iii) NOCTUACEA Burmeister, 1829 (Name No. 136) ;
 - (iv) NOCTUELIDI Boisduval, 1829 (Name No. 137) ;
 - (v) NOCTUITES Newman (E.), 1835 (Name No. 138) ;
 - (vi) NOCTUARIAE Zetterstedt, 1840 (Name No. 139) ;
 - (vii) NOCTUARIA Gravenhorst, 1843 (Name No. 140) ;
 - (viii) NOCTUELIDES Duponchel, 1844 (Name No. 141) ;
 - (ix) NOCTUELITES Guenée, 1852 (Name No. 142) ;
 - (x) NOCTUES Swinhoe, 1890 (Name No. 143) ;
- (e) GEOMETRIDA [Leach], [1815] (an Invalid Original Spelling for GEOMETRIDAE) (Name No. 144) ;
- (f) GEOMETRITES Newman (E.), 1835 (an Erroneous Subsequent Spelling for GEOMETRIDAE) (Name No. 145) ;
- (g) TORTRICES Latreille, [1802—1803] (an Invalid Original Spelling for TORTRICIDAE) (Name No. 146) ;

(h) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for *TORTRICIDAE* :—

- (i) *TORTRICIDA* [Leach], [1815] (Name No. 147);
- (ii) *TORTRICIDES* Billberg, 1820 (Name No. 148) ;
- (iii) *TORTRICITES* Newman (E.), 1835 (Name No. 149) ;

(i) *PYRALITES* Latreille, 1809 (an Invalid Original Spelling for *PYRALIDAE*, a spelling validated under the Plenary Powers in (1)(b)(5) above) (Name No. 150) ;

(j) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for *PYRALIDAE*, validated under the Plenary Powers as specified in (i) above :—

- (i) *PYRALIDA* [Leach], [1815] (Name No. 151) ;
- (ii) *PYRALIDES* Billberg, 1820 (Name No. 152) ;
- (iii) *PYRALIDIDES* Zetterstedt, 1840 (Name No. 153) ;
- (iv) *PYRALOIDI* Guenée, 1845 (Name No. 154) ;
- (v) *PYRALIDOIDAE* Herrich-Schaeffer, 1856 (Name No. 155) ;
- (vi) *PYRALIDIDAE* Lederer, 1863 (Name No. 156);
- (vii) *PYRALES* Swinhoe, 1890 (Name No. 157) ;

(k) *TINEITES* Latreille, 1810 (an Invalid Original Spelling for *TINEIDAE*) (Name No. 158) ;

(l) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for *TINEIDAE* :—

- (i) *TINEIDA* [Leach], [1815] (Name No. 159) ;
- (ii) *TINEAEDES* Billberg, 1820 (Name No. 160) ;
- (iii) *TINEODEA* Burmeister, 1837 (Name No. 161) ;
- (iv) *TINEACEA* Zeller, 1839 (Name No. 162) ;

- (v) TINEARIAE Zetterstedt, 1840 (Name No. 163);
- (vi) TINEARIA Gravenhorst, 1843 (Name No. 164) ;
- (vii) TINEAE Guenée, 1845 (Name No. 165) ;
- (m) ALUCITIDES [Leach], [1815] (an Invalid Original Spelling for ALUCITIDAE) (Name No. 166) ;
- (n) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for ALUCITIDAE :—
 - (i) ALUCITAEDES Billberg, 1820 (Name No. 167);
 - (ii) ALUCITITES Newman (E.), 1835 (Name No. 168) ;
 - (iii) ALUCITINA Zeller, 1841 (Name No. 169) ;
- (o) PHALAENIDAE (correction of PHALAENITES) Latreille, [1802—1803] (type genus : *Phalaena* Linnaeus, 1758) (invalid under *Declaration* 20 because name of type genus suppressed under the Plenary Powers in (1)(a) above) (Name No. 170) ;
- (p) PHALAENITES Latreille, [1802—1803] (an Invalid Original Spelling for PHALAENIDAE) (Name No. 171) ;
- (q) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for PHALAENIDAE :—
 - (i) PHALAENIDES [Leach], [1815] (Name No. 172) ;
 - (ii) PHALAENIDA [Leach], [1815] (Name No. 173) ;
 - (iii) PHALENIDIA Rafinesque, 1815 (Name No. 174) ;
 - (iv) PHALAENAEDES Billberg, 1820 (Name No. 175) ;

- (v) PHALAENOIDES Burmeister, 1829 (Name No. 176) ;
- (vi) PHALAENODEA Burmeister, 1837 (Name No. 177) ;
- (vii) PHALAENARIAE Zetterstedt, 1840 (Name No. 178) ;
- (viii) PHALAENOIDEA Gravenhorst, 1843 (Name No. 179) ;
- (r) TINAEIDAE Corbet (A.S.) & Tams (W.H.T.), 1943 (type genus : *Tinaea* Geoffroy (E.L.), 1762) (invalid (i) because the name of the type genus was published in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 228 as a work in which the author did not apply the principles of binominal nomenclature, and (ii) because its type genus has the same species as type species as *Tinea* Linnaeus, 1758 (validated under the Plenary Powers in (1)(b)(6) above) and this name is therefore a junior objective synonym of TINEIDAE (correction of TINEITES) Latreille, 1810, of which the latter genus is type genus) (Name No. 180) ;
- (s) ORNEODIDAE (correction by Meyrick (1895) of ORNEODIDES) Herrich-Schaeffer, [1843] (type genus: *Orneodes* Latreille, 1796) (invalid, as its type genus has as its type species the same species as *Alucita* Linnaeus, 1758 (validated under the Plenary Powers in (1)(b)(7) above) and this name is therefore a junior objective synonym of ALUCITIDAE (correction of ALUCITIDES) [Leach], [1815], of which the latter genus is type genus) (Name No. 181) ;
- (t) ORNEODIDES Herrich-Schaeffer, [1843] (an Invalid Original Spelling for ORNEODIDAE) (Name No. 182).

I. THE STATEMENT OF THE CASE

The present *Opinion* is concerned principally with the question of the validation under the Plenary Powers as of subgeneric status from Linnaeus, 1758 (*Syst. Nat.* (ed. 10)) of certain terms originally introduced to denote groups of species within the genus *Phalaena* Linnaeus, 1758 (Class Insecta, Order Lepidoptera). These and similar terms introduced by Linnaeus in other groups were rejected for nomenclatorial purposes by a Ruling given by the International Commission in *Opinion* 124 (1936, *Smithson. misc. Coll.* 73 (No. 8) : 1—2) which was later supplemented by a Ruling given in *Opinion* 279 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 6 : 179—188). In the first of these *Opinions* the International Commission indicated its willingness to give sympathetic consideration to applications for the validation under the Plenary Powers of such terms in cases where specialists could show that the rejection of such terms as not possessing subgeneric status would lead to serious confusion and name-changing. It was in consequence of the rejection of the terms of the class described above by the Ruling given in *Opinion* 124 that two of the applications dealt with in the present *Opinion* were submitted to the International Commission, while the third was put forward in response to the open invitation addressed to specialists in that *Opinion*.

2. The present *Opinion* deals comprehensively with the status of all the terms employed by Linnaeus to denote groups of species regarded by him as belonging to the genus *Phalaena*. There are in all eight such terms of which seven first appeared in 1758 in the Tenth Edition of the *Systema Naturae*, the eighth not appearing until the publication in 1767 of the Twelfth Edition of that work. In the first instance, separate applications were submitted to the International Commission in 1947 for the acceptance not as from Linnaeus, 1758, but as from Fabricius, 1775, of two of the terms concerned, namely *Bombyx* and *Pyrallis*, subject, however, in each case to the use of the Plenary Powers to designate a type species in harmony with established usage. These applications were submitted by Dr. Jiří Paclt (at that time of the *Národní Museum v Praze, Prague, Czechoslovakia*, and now of *Bratislava, Czechoslovakia*). Later, Dr. J. G. Franclemont (at that time of

the *United States Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.*, and now of *Cornell University, Ithaca, N.Y., U.S.A.*) submitted a comprehensive application for the validation under the Plenary Powers as from Linnaeus, 1758, of all the terms concerned (including the two terms which Dr. Paclt had recommended should be accepted as from Fabricius, 1775), and for the validation also of one further term of a similar character published by Linnaeus in 1767. On the publication of Dr. Franclemont's application Dr. Paclt submitted a rejoinder in which he put forward a counter-proposal in opposition to portions of the plan submitted by Dr. Franclemont. The three applications so submitted together with Dr. Paclt's counter-proposal, are reproduced in the immediately following paragraphs.

3. Application relating to the generic name "Bombyx" as used by Fabricius in 1775 submitted to the International Commission by Dr. Jiří Paclt (Národní Museum v Praze, Prague, Czechoslovakia) in 1947 : On 8th May 1947 Dr. Jiří Paclt (*Národní Museum v Praze, Prague, Czechoslovakia*) submitted to the International Commission on Zoological Nomenclature an application for the acceptance as from Fabricius, 1775, of the generic name *Bombyx*, a term first published by Linnaeus in 1758 to denote a group of species in the genus *Phalaena* Linnaeus, 1758, and for the designation as the type species of the nominal taxon so recognised of the nominal species *Phalaena mori* Linnaeus, 1758. Subject to certain drafting amendments introduced at a later stage for the procedural reasons explained in paragraph 8 below, the application so submitted was as follows :—

Proposed use of the Plenary Powers to designate for "Bombyx" Fabricius, 1775 (Class Insecta, Order Lepidoptera) a type species in harmony with current nomenclatorial usage

By JIŘÍ PACLT
(*Bratislava, Czechoslovakia*)

Fabricius in 1775 (*Syst. Ent.* : 556) erected the genus *Bombyx* for a number of species, one of which (*Phalaena Bombyx mori* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 499) may be considered to have been selected as the type species by Oken in 1815 (*Lehrb. Naturgesch.* 3(1) : 714). The status of Oken's *Lehrbuch*¹ for nomenclatorial

¹ Oken's *Lehrbuch* has since been rejected for nomenclatorial purposes by the Ruling given by the International Commission in *Opinion* 417 (1956, *Ops. Decls. int. Comm. zool. Nomencl.* 14 : 1—42).

purposes has been questioned but, whatever may be the position in this regard, the name *Bombyx* has ever since Oken's time been used in the foregoing sense in almost all general, as well as special, works on pure zoology and in the various fields of applied science.

2. Unfortunately, however, Latreille was the first author to select a type species for this genus (Latreille, 1810, *Consid. gén. Crust. Arachn. Ins.* : 441) and the species which he so selected was totally different from that accepted by Oken and almost all later authors. The species selected by Latreille was "*pavonia* Fabr.," i.e. *Phalaena Bombyx pavonia* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 496), a species which is today placed in the genus *Eudia* Jordan, 1913, of the family SATURNIIDAE.

3. Latreille's selection of *Phalaena pavonia* Linnaeus to be the type species of *Bombyx* Fabricius led Berthold in 1827 (in Latreille, *Natur. Fam. Thierr.* : 480) to erect a new genus for *Phalaena mori* Linnaeus, to which he gave the name *Sericaria*. Two years later this generic name was used by Latreille himself (Cuvier's *Règn. anim.* (ed. 2) 5 : 404). Only a few subsequent authors have used the name *Sericaria* Berthold in preference to the name *Bombyx*.

4. I am of the opinion that it would be highly undesirable to disturb the use of the generic name *Bombyx* for *Phalaena mori* Linnaeus, having regard to the fact : (1) that that generic name has been almost universally used for *P. mori* Linnaeus for well over a century, and (2) that the strict application of the *Règles* would give rise to great confusion by transferring the generic name *Bombyx* to the genus now known as *Eudia* Jordan, 1913, and the family name BOMBYCIDAE to the family now known as SATURNIIDAE, which latter name would thus fall to the ground.

5. I accordingly ask the International Commission on Zoological Nomenclature :—

- (1) to use its plenary powers (a) to set aside all type selections for the genus *Bombyx* Fabricius, 1775, made prior to the decision now proposed to be taken, and (b), having done so, to designate *Phalaena mori* Linnaeus, 1758, to be the type species of this genus ;
- (2) to place the generic name *Bombyx* Fabricius, 1775 (gender of generic name : masculine), with the type species specified in (1) above, on the *Official List of Generic Names in Zoology* ;
- (3) to place the trival name *mori* Linnaeus, 1758 (as published in the combination *Phalaena mori*) (trivial name of type species of *Bombyx* Fabricius, 1775) on the *Official List of Specific Trivial Names in Zoology*.

4. Application relating to the generic name "Pyralis" as used by Fabricius in 1775 submitted to the International Commission on Zoological Nomenclature by Dr. Jiří Paclt (Národní Museum v

Praze, Prague, Czechoslovakia) in 1947 : On 12th October 1947 Dr. Jiří Paclt (*Národní Museum v Praze, Prague, Czechoslovakia*) submitted to the International Commission on Zoological Nomenclature an application for the acceptance as from Fabricius, 1775, of the generic name *Pyrallis*, a term first published by Linnaeus in 1758, to denote a group of species in the genus *Phalaena* Linnaeus, 1758, and for the designation as the type species of *Pyrallis* Fabricius, 1775, of the nominal species *Phalaena farinalis* Linnaeus, 1758. Subject to certain drafting amendments introduced at a later stage for the procedural reasons explained in paragraph 8 below, the application so submitted was as follows :—

Proposed use of the Plenary Powers to designate for “*Pyrallis*” Fabricius, 1775 (Class Insecta, Order Lepidoptera) a type species in harmony with current nomenclatorial usage

By JIŘÍ PACLT
(Bratislava. Czechoslovakia)

In 1775 Fabricius established the genus *Pyrallis* (*Syst. Ent.* : 645). From the species included in this genus by Fabricius, Latreille (1810, *Consid. gén. Crust. Arachn. Ins.* : 441) selected “*fagana* Fabr.” (i.e. *Pyrallis fagana* Fabricius, 1781, *Spec. Ins.* 2 : 276) as the type species of this genus. Twenty-four years later, Stephens (1834, *Ill. Brit. Ins. Haust.* 4 : 25) regarded the genus *Pyrallis* from a different point of view and selected *Phalaena Pyralis farinalis* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 533) to be the type species of this genus.

2. With very few exceptions authors have since Stephens’s time accepted *P. farinalis* Linnaeus as representative of the genus *Pyrallis*. It would be highly undesirable at this date to disturb this usage.

3. The present proposal for the conservation of the generic name *Pyrallis* in its accustomed sense deserves support for the following reasons : (1) The selection of *Phalaena farinalis* Linnaeus as the type species of this genus has been almost universally accepted by workers in this group for the last 120 years, and the family name PYRALIDIDAE based upon this generic name immediately evokes a clear idea of this important group of moths. (2) No author except Latreille in 1810 has ever applied the generic name *Pyrallis* to the species *Pyrallis fagana* Fabricius, which belongs to a different genus and family (genus *Diurnea* Haworth, 1811 ; Family GELECHIIDAE). For these reasons, I am of the opinion that the acceptance of Latreille’s type selection for the genus *Pyrallis* would produce serious and quite unnecessary confusion.

4. I accordingly ask the International Commission on Zoological Nomenclature :—

(1) to use its Plenary Powers (a) to set aside all type selections for *Pyrallis* Fabricius, 1775, made prior to the decision now proposed

- to be taken, and (b), having done so, to designate *Phalaena Pyralis farinalis* Linnaeus, 1758, to be the type species of this genus ;
- (2) to place the generic name *Pyralis* Fabricius, 1775 (gender of generic name : feminine), with the type species specified in (1) above, on the *Official List of Generic Names in Zoology* :
- (3) to place the trivial name *farinalis* Linnaeus, 1758 as published in the combination *Phalaena Pyralis farinalis* (trivial name of type species of *Pyralis* Fabricius, 1775) on the *Official List of Specific Trivial Names in Zoology*.

5. Application for the validation under the Plenary Powers of the terms introduced by Linnaeus in 1758 and in one case in 1767 to denote groups of species assigned to the genus "Phalaena" Linnaeus, 1758, submitted to the International Commission by Dr. J. G. Franclemont (U.S. Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.) in 1950 : On 19th June 1950 Dr. J. G. Franclemont (U.S. Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.) submitted to the International Commission proposals for the validation under the Plenary Powers of the seven terms introduced by Linnaeus in 1758 to denote groups of species assigned by him to the genus *Phalaena* Linnaeus, 1758, and for validation of one similar term introduced by Linnaeus in 1767. The paper so submitted had then recently been published by the New York Entomological Society under the title "The Linnean Subgeneric Names of *Phalaena* (Lepidoptera, Heterocera)" (Franclemont, 1950, *J.N.Y. ent. Soc.* 58 : 41—53). Subject to certain drafting amendments introduced at a later stage for the procedural reasons explained in paragraph 8 below, the application so submitted was as follows :—

Proposed use of the Plenary Powers to validate as subgeneric names as from Linnaeus, 1758, certain terms published for groups of species within the genus "Phalaena" Linnaeus, 1758 (Class Insecta, Order Lepidoptera) (application submitted in response to the invitation given in "Opinion" 124)

By JOHN G. FRANCLEMONT

(United States Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.)

In 1758 in the tenth edition of the *Systema Naturae* Linnaeus established seven subdivisions of the genus *Phalaena*, which he named

Bombyx, *Noctua*, *Geometra*, *Pyralis*, *Tortrix*, *Tinea* and *Alucita*. On page 496 is a key to the divisions, which would seem to establish the names of the divisions as available and of subgeneric value. However, in 1936 the International Commission on Zoological Nomenclature promulgated *Opinion* 124, the summary of which states: "The various Subdivisions of genera published by Linnaeus in 1758 are not to be accepted as of this date (1758) as of subgeneric value under the International Rules." Basically, *Opinion* 124 is inadequate, for although it settled certain troublesome problems, it created uncertainty and confusion in other groups in which the names of the Linnean subdivisions had been long accepted and well established². Apparently the Commission recognised this possibility, for it stated a willingness to take up individual cases in those groups in which the *Opinion* produced greater confusion than uniformity. There appears to be no logical way of "stretching" *Opinion* 124 to cover the works of Linnaeus subsequent to 1758, and even if that were done there would still remain the problem of determining the status of the Linnean names used by other authors. Inasmuch as the Commission made no reference to the status of the Linnean "subgeneric" names in any work later than 1758, although it must have been aware of at least some of them, it appears necessary to consider in detail the use of the various names subsequent to 1758, both by Linnaeus and by the authors that immediately followed him. Discussions, in chronological sequence, of the various works, which have a bearing on this problem are as follows:—

1760—Langius, J. J., Caroli Linnaei Systema Naturae . . . Editionem Decimam. . . I do not consider this a separate work, merely another printing of the original Tenth Edition, and not entitled to separate recognition nomenclatorially.

1761—Linnaeus, C., Fauna Svecica, Second Edition. In this work the seven subdivisions of *Phalaena* are used in the same sense as in 1758. If the names were accepted from this work, five of the seven would fall readily into their customary and recognised usages, while two, *Bombyx* and *Pyralis*, would be used in unfamiliar associations. If we are to maintain the traditional usage of *Bombyx* as the generic name of the silk moth, it will be necessary for the International Commission on Zoological Nomenclature to use its Plenary Powers to suspend the Rules. Without doubt all workers in entomology would agree to this action, as there is perhaps no other name which has had the amount

² At its Session held in Paris in 1948 (Paris Session, 9th Meeting, Conclusion 40), the International Commission recognised that, as here stated by Dr. Franclemont, *Opinion* 124 was incomplete and, in consequence, in part, misleading. The Commission remedied this defect to some extent by extending the decision in *Opinion* 124 to all editions of the *Systema Naturae* of Linnaeus and also to the entomological works of Fabricius (J.C.) (see 1950, *Bull. zool. Nomencl.* 4 : 266—267). This decision was later incorporated in *Opinion* 279 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 6 : 179—188).

of literature built up around it as *Bombyx mori*. This action will be necessary, regardless of the author or the work from which the name is dated, because Blanchard selected *Phalaena Bombyx quercus* Linnaeus, 1758, as the type species of the genus in 1845 (*Histoire des Insectes* 2 : 373). This name species is the type species of *Lasiocampa* Schrank, 1802, the type genus of the Family LASIOCAMPIDAE. There is an earlier selection of *Phalaena Bombyx pavonia* Linnaeus as the type species by Latreille in 1810 (*Considérations générales sur l'Ordre naturel des Crustacés, des Arachnides et des Insectes* : 441). This I do not regard as valid, as I think it is excluded from consideration by the wording of the summary of *Opinion* 136 of the International Commission. Some workers accept the instances in which the word "ejusdem" was used by Latreille as falling within the meaning of "one only of the species included in the genus by the original author thereof". This particular point was one of the three questions submitted to the Commission on the 1810 Latreille type selections, but no answer was given. If *Pyralis* is accepted from this date, the type selection by Curtis in December 1834 (*British Entomology* 11 : 527) will be valid, as the species selected, *barbalis*, is included. This species was not included in *Pyralis* in 1758 ; it was not described until the following year by Clerck. Earlier Curtis had said, ". . . , it will be better to take the first species of Linnaeus as the type, . . ." (1829, *British Entomology* 6 : 288). Near the end of February 1834, Stephens (*Illustrations of British Entomology, Haustellata* 4 : 25) quoted Curtis's statement of 1829 and pointed out that the first species placed in *Pyralis* in 1758 was *farinalis* and that the first species placed in *Pyralis* in 1761 was *tentacularis*. Stephens thus gives us an idea of the ambiguity of Curtis's initial attempt to fix the type species of *Pyralis*. Unfortunately, Stephens did not at that time (February 1834) clearly select a type species for *Pyralis*, though criticising Curtis for not doing so, and when he finally selected *farinalis* as the type species of *Pyralis* in January 1835 (*Illustrations of British Entomology, Haustellata* 4 : 395), his action was ante-dated by Curtis's citation of *barbalis* as type species.

1761—Poda von Neuhaus, N., *Insecta Musei Graecensis*, . . . I can find no evidence as to which work appeared first in 1761, this or the Second Edition of the *Fauna Svecica*. However, if the names were used from this work, only three could be used in their traditional usages and four, *Bombyx*, *Geometra*, *Tortrix*, and *Alucita*, would be used in unfamiliar associations.

1762—Linnaeus, C., *Systema Naturae*, Eleventh Edition. This is a reprint of the Tenth Edition, and is said to abound in errors, but to have been recognised by Linnaeus as another edition of his work. I have not seen it, but I assume that it will not differ from the Tenth Edition. Thus if the names were used from this date, they would have the same application as if used from 1758.

1763—Scopoli, J. A., *Entomologia Carniolica*. . . . The subgeneric names are used in the plural at the head of sections of the genus *Phalaena*. If plural names were to be accepted³, the names would be available from this work.

1764—Linnaeus, C., *Museum Ludovicae Ulricaе*. In this work four of the names proposed in 1758 are used, namely, *Bombyx*, *Noctua*, *Geometra*, and *Pyrallis*. If these names were to be used as dating from this work, they would come to be applied in senses wholly foreign from any in which they have been used.

1767—Linnaeus, C., *Systema Naturae, Editio Duodecima Reformata*. The Twelfth Edition of the *Systema Naturae* is similar in construction to the Tenth Edition. All the names proposed as subdivisions of *Phalaena* in 1758 recur in the same sense in this work with the addition of one more, *Attacus*. As in 1758, a key to the divisions of *Phalaena* is given (: 809). If the names were used from this work they would have the same application as in Linnaeus, 1758.

1770, 1773 and 1782—Drury, D., *Illustrations of Natural History, Vols. 1, 2 and 3*. The subdivisions are used in an abbreviated form in this work, and are thus unrecognisable without reference to previous usage. If the names should be used from this work, none could be applied in the accepted sense, as this work deals with non-European species.

1775—Fabricius, J. C., *Systema Entomologiae*. From all the available evidence it appears that this work of Fabricius appeared earlier in the year 1775 than the *Ankündigung eines sytematischen Werkes von den Schmetterlingen der Wiener Gegend*. In his autobiography Fabricius says that his *Systema Entomologiae* appeared at Easter time in 1775.* The Denis and Schiffermüller work was not reviewed until 8th December 1775†, in the *Jenaische Zeitungen von Gelehrten Sachen*. The *Systema Entomologiae* is the first work in which the names appear in a strictly generic sense. If the names were to be accepted from this work, considerable confusion would arise. Fabricius used *Pyrallis* for the species which Linnaeus placed in *Tortrix*, placing the species which Linnaeus had under *Pyrallis* along with those he had under *Geometra* in *Phalaena*, and suppressing the Linnean names *Geometra* and *Tortrix*. In addition he employed *Alucita* of Linnaeus for part of *Tinea* of Linnaeus and for *Alucita* of Linnaeus he used *Pterophora* of Geoffroy. If *Noctua* in the insects were to be dated from this work, it would fall as a homonym of *Noctua* Gmelin (1771) in the birds.

* Julius Schuster 1928, *Linné und Fabricius zu Ihrem Leben und Werk* : 102. (Fascsimile.) F. W. Hope, 1845—1847, *Trans. ent. Soc. Lond.* 4 : Appendix. (Translation of Fabricius's autobiography.)

† L. B. Prout, 1900, *Ann. Mag. nat. Hist.* (7) 6 : 159

³ It was ruled by the International Commission in *Opinion* 183 in 1944 (*Ops. Decls. int. Comm. zool. Nomencl.* 2 : 13—24) that, in order to acquire availability, a generic name must be published in the nominative singular. This provision was incorporated into the *Règles* by the Thirteenth International Congress of Zoology, Paris, 1948 (see 1950, *Bull. zool. Nomencl.* 4 : 139—140).

1775—Denis and Schiffermüller, *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wiener Gegend*. Like Fabricius's work the names are used in a strictly generic sense. If the names were accepted from this work, the same situation would be met with as would obtain in accepting the names from the *Fauna Svecica*.

2. Following is a discussion of each of the names with the citations of all pertinent type selections.

Attacus

Phalaena Attacus Linnaeus, 1767, *Systema Naturae* (ed. 12) 1 (2) : 808. 17 included species.

Type selections :

Phalaena Bombyx atlas Linnaeus, 1758=*Attacus atlas* (Linnaeus)

Selected by [Duponchel], 1842, in d'Orbigny, *Dictionnaire Universel d'Histoire Naturelle* 2 : 320

Phalaena Bombyx pavonia major=*Bombyx pyri* Schiffermüller=*Attacus pyri* (Schiffermüller)

Selected by Blanchard, 1845, *Historie des Insectes* 2 : 372

Cramer in 1775 (*Papillons exotiques* 1 : 12, 14) uses *Attacus* in the same manner as Linnaeus for the single species, *atlas*. The first use of *Attacus* in a strictly generic sense is by Germar, 1810 (*Systematis Glossatorum Prodromus*, sect. 1 : 9). I have not been able to consult this work, and I am unable to determine the included species. This name does not fall within the wording of *Opinion* 124.⁴

Bombyx

Phalaena Bombyx Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 495. 58 included species.

Type selections :

Phalaena Bombyx pavonia Linnaeus, 1758 (as : *Bombyx pavonia* Fab. ; ejusd. *B. quercus*, *mori*, etc.)=*Bombyx pavonia* Linnaeus

Selected by Latreille, 1810, *Considérations générales sur l'Ordre Naturel des Crustacés, des Arachnides et des Insectes* : 441. (See the discussion of this under "1761—Linnaeus, C., *Fauna Svecica*.")

Phalaena Bombyx quercus Linnaeus, 1758=*Bombyx quercus* Linnaeus
Selected by Blanchard, 1845, *Histoire des Insectes* 2 : 373

Phalaena Bombyx mori Linnaeus, 1758=*Bombyx mori* (Linnaeus)
Selected by [Blanchard], 1846, in Cuvier, *Le Règne Animal* (Disciples, Edition) (Insectes) : pl. 151

⁴ This name does, however, come within the scope of *Opinion* 124 by the extension of that *Opinion* made by the Ruling given later in *Opinion* 279. See Footnote 2.

Should the Latreille type selections be considered valid, then *Bombyx* would fall in the SATURNIIDAE and would be isogenotypic with *Heraea* Hübner, 1806 and 1822, with type species *Bombyx carpini* Schiffermüller, 1775 = *Phalaena Bombyx pavonia* Linnaeus, 1758 = *Heraea pavonia* (Linnaeus) and with *Eudia* Jordan, 1913, with type species *Bombyx pavonia* Linnaeus = *Eudia pavonia* (Linnaeus). If the 1845 type selection of Blanchard were to be accepted as final, *Bombyx* would replace *Lasiocampa* Schrank, 1802, the names being isogenotypic. The traditional type species of *Bombyx* is *mori*** , but this species was not selected as type species until 1846.

The first use of the name subsequent to 1758 is by Linnaeus, 1761 (*Fauna svecica* (ed. 2) : 291) for 48 species including *pavonia* and *quercus*, but not *mori*. The first use in a strictly generic sense is by Fabricius, 1775 (*Systema Entomologiae* : 556) for 13 species including *pavona*, *quercus* and *mori*.

Noctua

Phalaena Noctua Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 508. 68 included species.

Type selections :

Phalaena Noctua typica Linnaeus, 1758 = *Noctua typica* Linnaeus.
Ipso facto. (See Article 30b of the Règles.)

Phalaena Noctua pronuba Linnaeus, 1758 = *Noctua pronuba* (Linnaeus).
By tautonomy. In the second edition of the *Fauna svecica* under species "1167 PH. NOCTUA *pronuba*" Linnaeus cites a reference to Goedart followed by "Noctua". This seems to fall within the bounds of the provisions for type species by tautonomy.

Phalaena Noctua pronuba Linnaeus, 1758 = *Noctua pronuba* (Linnaeus)
Selected by Latreille, 1810, *Considérations générales sur l'Ordre Naturel des Crustacés, des Arachnides et des Insectes* : 441.

Phalaena Noctua exclamationis Linnaeus, 1758 = *Noctua exclamationis* (Linnaeus)
Selected by Duponchel, 1829, in Godart, *Histoire Naturelle des Lépidoptères de France* 7(2) : 71

The first use of the name subsequent to 1758 is by Linnaeus in 1761 in the Second Edition of the *Fauna svecica* (: 305) ; 85 species are listed including *typica*, *pronuba* and *exclamationis*. The first use in

** *Sericaria* Latreille, 1829, in Cuvier, *Le Règne Animal* (ed. 2), 5 : 404, often used with *mori* as type, is incorrect as *mori* was not one of the originally included species.

a strictly generic sense in the insects is by Fabricius in 1775 in the *Systema Entomologiae* (: 590) ; 122 species are listed including *typica*, *pronuba* and *exclamationis*. This name has also been used in the birds, and I have considered all the references carefully, and I find the first valid usage in that group to be Gmelin's in 1771 in the *Novi Commentarii Academiae Scientiarum Imperialis Petropolitanae* 15 : 447, for *Noctua minor*=*Stryx accipitrina* Pallas, 1771. ††

In 1923, Barnes and Benjamin (*Contributions to the Natural History of the Lepidoptera of North America* 5 (pt. 2) : 55) stated that the long established and familiar family name NOCTUIDAE should be replaced by PHALAENIDAE. Their reasons were that *Phalaena* Linnaeus, 1758, and *Noctua* Linnaeus, 1758, were isogenotypic, having *Phalaena Noctua typica* Linnaeus, 1758, as type species (see Article 30b of the *Règles*), and that *Noctua* was in effect the typical subgenus of *Phalaena* (see Articles 9 and 29 of the *Règles*). The promulgation of *Opinion* 124 in 1936 (*Smithsonian Miscellaneous Collections* 73(8) : 1-2) has put their reasoning in an entirely different light, because these names no longer have the same type species, and one is free to select the type species of *Noctua*.

If we accept *Noctua* Linnaeus as of 1761, *typica* Linnaeus, 1758, cannot be construed as the type species because it is not a new species in this work (see Article 30b of the *Règles*). The type could be *pronuba* Linnaeus, 1758, by tautonomy and also as subsequently selected by Latreille in 1810. Duponchel's subsequent type selection of *exclamationis* Linnaeus, 1758, would be invalid. *Noctua* Linnaeus, 1761, would then take precedence over *Triphaena* Ochsenheimer with the same species, *pronuba*, selected as type species by Curtis in 1831 (*British Entomology* 8 : 348).

The generic name *Noctua** has had slightly varying applications within the sub-family AGROTINAE (recte NOCTUINAE) of the family of which it is the type genus. In America the name has been applied to the group of moths typified by the species related to *c-nigrum* ; this was the usage of John B. Smith and was based upon the Guenée (1852) and Meigen (1829) use of the name. The correct name for this group is *Amathes* Hübner [1821] with type *Noctua baja* Schiffermüller.

†† Tams, 1935, *Insecta of Samoa*, Part 3, Lepidoptera, Fasc. 4, 171, refers to *Noctua* Linnaeus, 1766. In this usage (*Amaenitates Academicæ*, 7 : 450) the name is a *nomen nudum* ; it is a combination (*Noctua daurica*) of an undescribed species and an undescribed genus. The first date of this use is 1764 (*Dissertatio Academica Demonstrans Necessitatem Promovendæ Historiæ Naturalis in Rossia*, 16), and it should be credited to Karamyschew, not Linnaeus. It has no nomenclatorial validity.

* For a comprehensive discussion of *Noctua* see Grote, 1902. *Proc. Amer. phil. Soc.* 41 : 4—12. For a bibliography see Barnes and Benjamin, 1923, *Contributions to the Natural History of the Lepidoptera of North America*, 5 (pt. 2), 56—57.

Hampson, on the basis of the "first species rule," used the name *Noctua* with type species *strix* Linnaeus, 1758, in place of *Thysania* Dalman, 1825, and substituted the subfamily name NOCTUINAE for EREBINAE.

The recognition of the technically correct position of *Phalaena* and *Noctua* and the change of the family name NOCTUIDAE to PHALAEINIDAE has led to confusion and to the interjection of the name AGROTIDAE† as a substitute for PHALAEINIDAE. The inherent confusion lies in the application that the names *Phalaena* and PHALAEINIDAE had prior to the change made by Barnes and Benjamin in 1923. *Phalaena* was restricted by Fabricius in 1775 to include the species placed by Linnaeus in *Phalaena Geometra* and *Phalaena Pyralis*. Latreille, accepting this restriction, made his family PHALAEINITES (in Sonnini's Buffon, *Insectes*, in 1802, 3 : 411), and in 1810 (*Considérations générales sur l'Ordre Naturel des Crustacés, des Arachnides et des Insectes* : 441) he selected *Phalaena Geometra sambucaria* Linnaeus, 1758, as the type species of *Phalaena*. Leach in [1815] (Brewster's *Edinburgh Encyclopaedia*, 9 (pt. 1) : 134) proposed the tribe PHALAEINIDES in which he included five families—PHALAEINIDA, GEOMETRIDA, HERMINIDA, PLATYPTERCIDA and TORTRICIDA. The first two families equal the present family GEOMETRIDAE. Samouelle in 1819 (*Entomologist's Useful Compendium* : 252) combined the two names of Leach for the "Geometrids" and used PHALAEINIDAE. Curtis in his *British Entomology* published between 1823 and 1840 divided the species between GEOMETRIDAE and PHALAEINIDAE without any apparent reasons. Duponchel in 1829 and Guenée in 1857 used PHALAEINITES for the "Geometrids." Packard published his *Monograph of the Geometrid Moths or Phalaenidae of North America* in 1876. The name has been used by other workers, but almost always referring to the "Geometrids," never to the Noctuids. A small group of workers, who apply the "first species rule" rigidly, have asserted that the family name PHALAEINIDAE is the correct name for the family called SATURNIIDAE (Testout, *Bulletin Mensuel de la Société linnéenne de Lyon*, 1941 : 153).

If we accept the reinstatement of *Noctua* Linnaeus, 1761, as a name acceptable under the strict interpretation of the provisions of the *Règles* and the *Opinions* of the International Commission on Zoological Nomenclature, NOCTUIDAE could be used in place of the very ambiguous,

† The family name AGROTIDAE was proposed by Grote in 1895 (*Abhandl. naturwiss. Vereins zu Bremen* 14 : 43) to replace the family name NOCTUIDAE. Grote considered it arbitrary to begin zoological nomenclature with the tenth edition of the *Systema Naturae*, and thus, to his way of thinking, *Noctua* Linnaeus, 1758, was pre-occupied by *Noctua* Klein, 1753 (see 1896, *Can. Ent.* 28 : 65—66). Actually the first use of AGROTIDAE was by Heinemann in 1859 (*Schmetterlinge Deutschlands und der Schweiz*, 1 : 488) and was based upon, and equal in concept to, AGROTIDES of Rambur, proposed in 1848 (*Ann. Soc. ent. France*, 6 : 67). AGROTIDAE in the sense of Rambur and Heinemann is equal to the modern subfamily AGROTINAE (PHALAEINAE) *recte* NOCTUINAE.

though older, family name PHALAENIDAE. In view of the great amount of literature that has been built up for PHALAENIDAE in the sense of the Geometrid moths and because the use of the name for the Noctuid moths has had very little acceptance generally, I do not think it will contribute anything to stability to continue to advocate the use of PHALAENIDAE in place of NOCTUIDAE. As a family name NOCTUIDAE, proposed as NOCTUAELITES by Latreille in 1809 (*Genera Crustaceorum et Insectorum*, 4 : 224), has had universal usage for one concept, and it is still generally used by most workers other than those in England and in North America.

Geometra

Phalaena Geometra Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 519.
75 included species

Type selection:

Phalaena Geometra papilionaria Linnaeus, 1758 = *Geometra papilionaria* (Linnaeus)

Selected by Duponchel, 1829, in Godart, *Histoire Naturelle des Lépidoptères de France* 7(pt. 2) : 106

The first use subsequent to 1758 is by Linnaeus in 1761 in the second edition of the *Fauna svecica* (: 332) for 81 species including *papilionaria*. The first use in a strictly generic sense is by Schiffermüller in 1775 in the *Ankundung eines systematischen Werkes von den Schmetterlingen der Wiener Gegend* (: 95) for 191 species including *papilionaria*.

Pyralis

Phalaena Pyralis Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 533.
8 included species

Type selections :

“First species of Linnaeus.”

Selected by Curtis, 1829, *British Entomology* 6 : 288

Phalaena barbalis Clerck, 1759 = *Pyralis barbalis* (Clerck)

Selected by Curtis, 1834 (December), *British Entomology*
11 : 527

Phalaena Pyralis farinalis Linnaeus, 1758 = *Pyralis farinalis* (Linnaeus)

Selected by Stephens, 1835 (January), *Illustrations of British Entomology* Haustellata 4 : 395

Tortrix fagana Schiffermüller, 1775 = *Pyralis fagana* (Schiffermüller)

Selected by Latreille, 1810, *Considérations générales sur l'Ordre Naturel des Crustacés, des Arachnides et des Insectes* : 441

The first use of *Pyralis* subsequent to 1758 is by Linnaeus in 1761 in the *Fauna svecica* (ed. 2) : 349 for 13 species including *farinalis* and *barbalis*. If the name were to be accepted from this work it would fall in the Noctuids and replace *Herminia* Latreille, the type genus of the subfamily HERMINIINAE. The first use of the name in a strictly generic sense was by Fabricius in 1775, *Systema Entomologiae* (: 645) for 57 species. These were the species which Linnaeus placed under *Tortrix*. If the name were to be accepted from this source, it would replace *Tortrix* or one of the closely related genera. Blanchard (1840 and 1845) was apparently the last worker to use *Pyralis* in the sense of Fabricius, but he also used *Tortrix* in the Linnean sense.

Tortrix

Phalaena Tortrix Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 530. 24 included species

Type selection :

Phalaena Tortrix viridana Linnaeus, 1758 = *Tortrix viridana* (Linnaeus)

Selected by Curtis, 1839, *British Entomology* 16 : 763

The first use subsequent to 1758 is by Linnaeus in 1761 in the second edition of the *Fauna svecica* (: 342) for 40 species including *viridana*. The first use in a strictly generic sense was by Schiffermüller in 1775 in the *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wiener Gegend* (: 125) for 104 species including *viridana*.

Tinea

Phalaena Tinea Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 534. 56 included species

Type selection :

Phalaena Tinea pellionella Linnaeus, 1758 = *Tinea pellionella* (Linnaeus)

selection by Latreille, 1810, *Considérations générales sur l'Ordre Naturel des Crustacés, des Arachnides et des Insectes* : 441

The first use subsequent to 1758 is by Linnaeus in 1761 in the second edition of the *Fauna svecica* (: 352) for 95 species including *pellionella*. The first use in a strictly generic sense is by Geoffroy in 1762 in his

Histoire Abrégée des Insectes (2 : 25 and 173).⁵ In this work there are no *nomina trivialia* ; the species included under this name are represented by a descriptive polynominal phrase. Geoffroy spelled the name *Tinaea*.⁶ Fabricius first used the name with included *nomina trivialia* in 1775 in the *Systema Entomologiae* (: 655) for 66 species including *pellionella*.

Alucita

Phalaena Alucita Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 542.
6 included species

Type selections :

Phalaena Alucita hexadactyla Linnaeus, 1758 = *Alucita hexadactyla* (Linnaeus)

Selected by Curtis, 1838, *British Entomology* 15 : 695

Tinea striatella Schiffermüller, 1775 = *Alucita striatella* (Schiffermüller)

Selected by [Blanchard] 1846, in Cuvier, *Le Règne Animal* (Disciples, Edition). *Insectes* : pl. 157

Phalaena Tinea De Geerella [recte *degeerella*] Linnaeus, 1758 = *Alucita degeerella* (Linnaeus)

Selected by Walsingham, 1911, *Biologia Centrali-Americana*, *Insecta*, *Lepidoptera-Heterocera* 4 : 89 (as the type of *Alucita* Fabr. nec *Alucita* Linnaeus)

The first use subsequent to 1758 was by Linnaeus in 1761 in the second edition of the *Fauna svecica* (: 370) for 7 species including *hexadactyla*. The first use in a strictly generic sense was by Fabricius in 1775 in the *Systema Entomologiae* (: 667) for 20 species. These were part of the species which Linnaeus included under *Phalaena Tinea*, thus if the name were used from this work it would come to be applied in a different association than the customary one.

CONCLUSIONS

3. In view of the uncertainty as to the work from which to date the generic names which first appeared as the names for groups of species within the genus *Phalaena* Linnaeus, 1758, and of the importance of maintaining these names and the family names based upon them in the same sense as that in which all the pertinent literature has been built up, the International Commission on Zoological Nomenclature is asked to take the following action, namely :—

⁵ The *Histoire abrégée* of Geoffroy has since been rejected for nomenclatorial purposes by the International Commission in its *Opinion* 228 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 4 : 209—220).

⁶ For a further discussion of the generic name *Tinaea* Geoffroy, 1762, see paragraph 13 of the paper reproduced in paragraph 26 of the present *Opinion* (: 308).

(1) use its Plenary Powers :—

- (a) to suppress the generic name *Phalaena* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 495) for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (b) under the procedure envisaged in *Opinion* 124 (i) to validate, as of subgeneric status, the names specified in Column (1) below, those names to be treated as having been published by Linnaeus on the pages of the Tenth Edition of the *Systema Naturae* and on the date specified in that Column, (ii) to designate as the type species of the subgenera concerned the species specified in Column (2) below, and (iii) to direct that the Families in which the subgenera specified in Column (1) are placed shall bear the names specified in Column (3) below :—

Name of subgenus and original reference thereto	Species designated as the type species of the subgenus specified in Column (1)	Name of Family in which subgenus specified in Column (1) to be placed (3)
(1)	(2)	(3)
(i) <i>Bombyx</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 495 (masculine)	<i>Phalaena Bombyx mori</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 499	BOMBYCIDAE
(ii) <i>Noctua</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 508 (feminine)	<i>Phalaena Noctua pronuba</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 512	NOCTUIDAE*
(iii) <i>Geometra</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 519 (feminine)	<i>Phalaena Geometra papilionaria</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 522	GEOMETRIDAE
(iv) <i>Tortrix</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 530 (feminine)	<i>Phalaena Tortrix viridana</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 530	TORTRICIDAE
(v) <i>Pyralis</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 533 (feminine)	<i>Phalaena Pyralis farinalis</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 533	PYRALIDAE†
(vi) <i>Tinea</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 534 (feminine)	<i>Phalaena Tinea pellionella</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 536	TINEIDAE
(vii) <i>Alucita</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 542 (feminine)	<i>Phalaena Alucita hexadactyla</i> Linnaeus, 1758, <i>Syst. Nat.</i> (ed. 10) 1 : 542	ALUCITIDAE

* This involves the abandonment of the family names PHALAENIDAE as used in America and AGROTIDAE as used in England.

† The form here proposed to be adopted for the name of this family is PYRALIDAE and not the emendation PYRALIDIDAE for reasons similar to those recently advanced by Hemming (1952, *Bull. zool. Nomencl.* 7 : 68—69) in regard to the family name PIERIDAE and its emendation PIERIDIDAE.

- (c) under the procedure envisaged in *Opinion* 124, as extended by the International Commission in Paris in 1948 (1950, *Bull. zool. Nomencl.* 4 : 266—267), (i) to validate, as of subgeneric status, the name *Attacus*, as from Linnaeus, 1767 (*Syst. Nat.* (ed. 12) 1 (2) : 808), and (ii) to designate *Phalaena Bombyx atlas* Linnaeus, 1758 (*Syst. Nat.* (ed. (ed. 10) 1 : 495) to be its type species ;
- (2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—
- (a) the seven generic names validated under the Plenary Powers, as proposed in (1)(b) above with the type species there specified ;
- (b) *Attacus* Linnaeus, 1767, as validated under the Plenary Powers, as proposed in (1)(c) above, with the type species there specified ;
- (3) place the under-mentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—
- (a) the trivial names of the seven species specified in Column (2) of (1)(b) above ;
- (b) the trivial name *atlas* Linnaeus, 1758, as published in the combination *Phalaena atlas* (trivial name of type species of *Attacus* Linnaeus, 1767) ;
- (4) place the generic name *Phalaena* Linnaeus, 1758, as proposed, under (1)(a) above, to be suppressed under the Plenary Powers, on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

4. If the above actions are taken, it is believed that stability in the use of these names will result and that the growing confusion in the nomenclature of the Lepidoptera Heterocera will be materially reduced.

6. Counter-proposal in favour of the acceptance of the generic name “Phalaena” Linnaeus, 1758, submitted by Dr. Jiří Paclt in 1952 : As soon as the terms of Dr. Franclemont’s application (paragraph 5 above) had been finally settled, Mr. Hemming, as Secretary, communicated a copy of it to Dr. Jiří Paclt, in view of the fact that the proposals submitted by Dr. Franclemont

cut across those already submitted by Dr. Paclt and it appeared equitable that the latter should be afforded the earliest possible opportunity of commenting on Dr. Franclemont's plan. On 14th July 1952 Dr. Paclt communicated to the Office of the Commission a counter-proposal in which, after expressing objection to Dr. Franclemont's proposal in favour of the suppression under the Plenary Powers of the generic name *Phalaena* Linnaeus, 1758, he recommended that definitive approval of that name should be given by the International Commission by placing it on the *Official List of Generic Names in Zoology*. Subject to a few minor drafting points which were settled by Dr. Paclt in a letter dated 19th August 1952, the counter-proposal referred to above was as follows :—

**Dr. John G. Franclemont's proposal for the use of the Plenary Powers to suppress the generic name "Phalaena" Linnaeus, 1758, and to validate, as from 1758, the terms employed by Linnaeus for groups of that genus (Class Insecta, Order Lepidoptera):
proposed addition of "Phalaena" Linnaeus, 1758 to the "Official List of Generic Names in Zoology"**

By JIŘÍ PACLT
(Bratislava, Czechoslovakia)

I entirely disagree with Dr. John G. Franclemont's proposal (1952, *Bull. zool. Nomencl.* 6 : 304—312) for the validation, as of subgeneric status, of the terms used by Linnaeus in 1758, to denote the groups into which he divided the genus *Phalaena* Linnaeus, 1758⁷. My view in this matter is not confined to the particular terms discussed by Dr. Franclemont, but apply equally to all similar terms used by Linnaeus for subdivisions of genera established by him in 1758. See my paper on this subject published in 1947 (*Acta Soc. ent. Czechosl.* 44 : 37). For if we accept any of these terms as being the names of subgenera, we should be bound logically to adopt the same course by analogy in the case of the terms used by Linnaeus for subdivisions of the genus *Papilio*.

2. In the case of *Papilio* Linnaeus, 1758, there are six of these terms, namely :—(1) *Barbarus* ; (2) *Eques* ; (3) *Heliconius* ; (4) *Danaus* ; (5) *Nymphalis* ; (6) *Plebejus*. Of these the first two have been dis-

⁷ For Dr. Franclemont's application see paragraph 5 of the present *Opinion*

regarded for many years, but as regards each of the remainder we now have a generally accepted nomenclatorial usage, namely :—

<i>Heliconius</i> Kluk, 1802	Type species :	<i>Papilio charithonia</i> Linnaeus, 1758
<i>Danaus</i> Kluk, 1802	do.	<i>Papilio plexippus</i> Linnaeus, 1758
<i>Nymphalis</i> Kluk, 1802	do.	<i>Papilio polychloros</i> Linnaeus, 1758
<i>Plebejus</i> Kluk, 1802	do.	<i>Papilio argus</i> Linnaeus, 1758.

3. In these circumstances it will be evident that no useful purpose whatever would be served by validating as from 1758, the terms used by Linnaeus for subdivisions of the genus *Papilio* Linnaeus, 1758, and, indeed, that nothing but confusion would result from such action.

4. When we turn to consider the parallel problem presented by the terms used by Linnaeus in 1758 for subdivisions of the genus *Phalaena* Linnaeus, we find that, with a few exceptions these terms are generally accepted as generic names either as from Fabricius, 1775 (*Syst. Ent.*) or from Denis & Schiffermüller, 1775 (*Ankünd. syst. Werkes Schmett. Wienergegend*). The usages so accepted are as follows :—

<i>Bombyx</i> Fabricius, 1775	Type species :	<i>Phalaena mori</i> Linnaeus, 1758
<i>Geometra</i> Denis & Schiff., 1775	do.	<i>Phalaena papilionaria</i> Linnaeus, 1758
<i>Tortrix</i> Denis & Schiff., 1775	do.	<i>Phalaena viridana</i> Linnaeus, 1758
<i>Pyralis</i> Fabricius, 1775	do.	<i>Phalaena farinalis</i> Linnaeus, 1758
<i>Tinea</i> Fabricius, 1775	do.	<i>Phalaena pellionella</i> Linnaeus, 1758
<i>Alucita</i> Fabricius, 1775	do.	<i>Phalaena pentadactyla</i> Linnaeus, 1758.

5. In the case of the names *Bombyx* and *Pyralis*, the foregoing usage is not in strict accord with the requirements of the *Règles*. In these cases proposals have been submitted to the International Commission for the use of the Plenary Powers to validate existing usage. See my application Z.N.(S)288 on *Bombyx* Fabricius (1952, *Bull. zool. Nomencl.* 6 : 313—314)⁸ and Z.N.(S.)331 on *Pyralis* Fabricius (1952, *ibid.*, 6 : 314—315).⁸

⁸ The applications submitted by Dr. Paclt in regard to the generic names *Bombyx* and *Pyralis* have been reprinted in paragraphs 3 and 4 respectively of the present *Opinion*.

6. We have to note also that in the case of the term *Noctua* as used by Linnaeus to denote a group of the genus *Phalaena* there is (as in the case of *Papilio Eques*) a further problem which would require consideration, for it is clear that, if there were such a subgeneric name as *Noctua* Linnaeus, 1758, its type species would not be the same species as that of *Phalaena* Linnaeus, 1758, for the type species of *Noctua* Linnaeus, 1758, would be *Phalaena pronuba* Linnaeus, 1758, while that of *Phalaena* Linnaeus, 1758, is *Phalaena typica* Linnaeus, 1758.

7. In these circumstances I must ask why Dr. Franclemont wishes to disturb the well-established practice of ignoring all the terms used by Linnaeus in 1758 for subdivisions of genera then established. In this connection I must point out that Dr. Franclemont's proposals would involve the cancellation, or at least the modification, of the Commission's *Opinion* 124, which states: "The various subdivisions of genera published by Linnaeus in 1758 are not to be accepted as of this date (1758) as of subgeneric value under the International Rules".⁹

8. If in despite of *Opinion* 124 we were to accept the terms used by Linnaeus to denote groups of species within his genera as being names of subgeneric status as from 1758, we should be confronted with serious and quite unnecessary difficulties. For example, we should probably have to take special steps to preserve the name *Eques* Bloch, 1793, the name of a well-known genus of fishes, which, in the absence of such action, would fall as a junior homonym of *Eques* Linnaeus, 1758. Again, we should be confronted with such problems as those presented by the name "*Barbarus*" (properly *Papilio Barbarus*), the position as regards which was discussed by Tutt in 1905 (*Ent. Rec.* 17 : 211). No doubt also similar problems would arise in the case of groups of animals other than the Order Lepidoptera, with which alone we are here concerned. Unless serious reasons could be brought forward in favour of such a course, it would, indeed, in my opinion, be ridiculous to disturb the ruling given in *Opinion* 124, an *Opinion* which, though of relatively recent date, has made a substantial contribution to the central aim of the *Règles*, namely, the stabilisation of zoological nomenclature.

9. Finally, I must make it clear that I am strongly opposed to Dr. Franclemont's proposal for the suppression of the name *Phalaena* Linnaeus, 1758. Dr. Franclemont suggests that the family name (NOCTUIDÆ) derived from the generic name *Noctua* is "long-established and familiar". In my view, however, there are two rivals of that family name: for many decades the family name AGROTIDÆ has been

⁹ Attention is drawn to the comment later furnished by Dr. Franclemont rebutting, as being misconceived, the argument here used by Dr. Paclt, which is reproduced in paragraph 19 of the present *Opinion*.

used in Europe for the family in question. while in America the name PHALAENIDAE prevails.

10. Like the name *Papilio* Linnaeus, 1758, the name *Phalaena* Linnaeus, 1758, is a well-known name, even though it has often been used in an ambiguous way. I think it desirable that this name should now be officially recognised and I accordingly ask the International Commission to do this by placing this name on the *Official List of Generic Names in Zoology*. The request now submitted is therefore that the International Commission should :—

- (1) place on the *Official List of Generic Names in Zoology* the generic name *Phalaena* Linnaeus, 1758 (gender of generic name : feminine) (type species, under Rule (b) in Article 30 (use of the word *typica* as the trivial name of an included species) : *Phalaena typica* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 512) ;
- (2) place on the *Official List of Specific Trivial Names in Zoology* the trivial name *typica* Linnaeus, 1758, as published in the combination *Phalaena typica*) (trivial name of type species of *Phalaena* Linnaeus, 1758).

II. THE SUBSEQUENT HISTORY OF THE CASE

7. Registration of the applications received in regard to various aspects of the present case : Upon the receipt in 1947 of the applications submitted by Dr. Paclt the Registered Number Z.N.(S.) 288 was allotted to that relating to the name *Bombyx* Fabricius, 1775, and the Registered Number Z.N.(S.) 331 to that relating to the name *Pyralis* Fabricius, 1775. When in 1950 Dr. Franclemont's comprehensive application in regard to all the terms introduced by Linnaeus to denote groups of species within the genus *Phalaena* Linnaeus, 1758, was received in the Office of the Commission, the case so submitted was allotted the Registered Number Z.N.(S.) 462. In the concluding stages of the consideration of the proposals put forward in the foregoing applications the two earlier Files were closed, the papers relating to Dr. Paclt's proposals regarding the names *Bombyx* Fabricius and *Pyralis* Fabricius respectively being transferred to File Z.N.(S.) 462.

8. Drafting amendments on procedural grounds made in the applications submitted in the present case : It was not found possible to make any progress with the applications in regard to the names *Bombyx* and *Pyralis* respectively submitted by Dr. Paclt in 1947 before the meeting of the International Commission held in Paris 1948 concurrently with the Thirteenth International Congress of Zoology. The decisions on procedural matters, notably those relating to the placing on the appropriate *Official Lists* of all names accepted by the Commission in its *Opinions*, taken by the foregoing Congress necessitated a certain amount of redrafting in the case of all applications then awaiting attention by the Commission. No progress in this matter was, however, possible until after the publication in 1950 (*Bull. zool. Nomencl.* 4, 5) of the Official Record of the decisions taken in Paris in 1948 by the International Commission on Zoological Nomenclature and by the International Congress of Zoology respectively. Thereafter work was resumed on the applications which had been pending at the time of the Paris meetings, the Secretary entering into correspondence on outstanding points with the applicants concerned. In the case of the applications relating to the names *Bombyx* and *Pyralis* the necessary amendments were settled by Dr. Paclt in a letter dated 14th July 1952. The more general application submitted by Dr. Franclemont was received in the Office of the Commission in 1950 just after the publication of the Official Record of the Paris Meetings but had been prepared before the terms of the Paris decisions had been made public. Accordingly in the case of this application also some redrafting was required in order to bring it into line with the procedural decisions taken by the Paris Congress. These amendments were settled by Dr. Franclemont in a letter to the Office of the Commission dated 26th July 1952.

9. Support received for Dr. Franclemont's application prior to its publication in the "Bulletin of Zoological Nomenclature" .: Prior to the publication of Dr. Franclemont's application in the *Bulletin of Zoological Nomenclature* particulars of support for the action there recommended were received by the Office of the Commission from the following sources, namely : (1) a letter dated 4th July 1950 from Dr. Eugene Munroe (*Division of*

Entomology, Department of Agriculture, Ottawa, Canada); (2) in a letter dated 4th January 1951 received from Dr. J. G. Franclemont, containing particulars of support received from other specialists :—

(a) Support received from Dr. Eugene Munroe in a letter dated 4th July 1950 (Munroe, 1952, "Bull. zool. Nomencl." 6 : 317) :

Mr. John G. Franclemont, of the United States National Museum, has sent me a copy of his paper on the Linnean subgeneric names of *Phalaena*, with the request that I study the arguments and recommendations presented, and make known my views on the subject to you, as Secretary to the International Commission.

I have read Mr. Franclemont's paper carefully. I have a special interest and knowledge only in the cases of *Pyralis* and *Alucita*, but I have studied critically the discussion of the other names.

I am glad to say that I find nothing to add to the facts and opinions which Mr. Franclemont has presented, beyond my hearty commendation and warm support. I earnestly hope that the International Commission will see its way to following the recommendations outlined at the end of Mr. Franclemont's paper.

(b) Particulars of support from certain specialists communicated by Dr. J. G. Franclemont (extract from a letter dated 4th January 1951) :

I have checked with the ornithologists here at the Museum and they have furnished me with the following information: *Noctua* Gmelin, 1771, is a synonym of *Asio* Brisson, 1760; the respective types are the short-eared and long-eared owls. Whenever the name *Noctua* has been used by ornithologists it has usually been credited to Savigny with the date 1809. Sharp in the *British Museum Catalogue* credits *Noctua* to Savigny and makes no mention of the Gmelin use. It has been stated that this catalogue has governed to a great extent the use of names by ornithologists. Prior to 1926 and *Opinion* 124 any use in the birds would have been considered *ultra vires*. The name is not in use for any genus of owls and has apparently not been used for almost a century or more.

I have heard only from McDunnough, Forbes, Dos Passos, Munroe and Chermock, all have agreed to all the points requested. Clarke, Heinrich, Field and Capps at the Museum have also stated their acceptance of my suggestions for the fixing of the names. In addition, José Oiticica Filho, of Rio de Janeiro, Brazil also thought the proposal a step in the right direction. When I talked with McDunnough in New York last spring he was somewhat sceptical about the Commission being willing to give a subgenus precedence over a genus, but nevertheless agreed that *Noctua* and NOCTUIDAE were to be preferred to *Phalaena* and PHALAEINIDAE.

10. Publication of the applications submitted in the present case : Dr. Paclt's applications relating respectively to the names *Bombyx* and *Pyralis* and Dr. Franclemont's application dealing generally with the question of the possible validation under the Plenary Powers of the terms used by Linnaeus to denote groups of species within the genus *Phalaena* Linnaeus, 1758, were sent to the printer on 4th July 1952 and were published in Part 10 of Volume 6 of the *Bulletin of Zoological Nomenclature* on 29th August 1952 (Paclt, 1952, *Bull. zool. Nomencl.* **6** : 313—314 (*Bombyx*) ; *id.*, 1952, *ibid.* **6** : 314—315 (*Pyralis*) ; Franclemont, 1952, *ibid.* **6** : 304—312). Dr. Paclt's counter-proposal relating to the generic name *Phalaena* Linnaeus, 1758, which was received too late to be included in the same Part of the *Bulletin of Zoological Nomenclature* as the other papers relating to the present case, was published in the next available Part of the *Bulletin* and appeared on 30th December 1952 (Paclt, 1952, *Bull. zool. Nomencl.* **9** : 147—148).

11. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56) Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case either (i) for the purpose of designating type species for the genera *Bombyx* Fabricius, 1775, and *Pyralis* Fabricius, 1775, as recommended by Dr. Paclt or (ii) for the validation of the above and certain other terms as being of subgeneric status as from Linnaeus, 1758, and, in one case, the validation of such a term as from Linnaeus, 1767, and the suppression of the generic name *Phalaena* Linnaeus, 1758, as recommended by Dr. Franclemont,

was given on 29th August 1952 (a) in Part 10 of Volume 6 of the *Bulletin of Zoological Nomenclature* (the Part in which were published the two applications submitted by Dr. Paclt and also the application submitted by Dr. Franclemont) and (b) to the other prescribed serial publications. In addition, such Public Notice was given also to four general zoological serials and to eight entomological serials in Europe and America.

12. Comments received : The publication of the foregoing applications in the *Bulletin of Zoological Nomenclature* and the issue of Public Notices regarding the possible use by the International Commission of its Plenary Powers in connection therewith elicited a number of communications of various kinds, namely :—(1) communications from six specialists (U.S.A., three specialists ; Brazil, two specialists ; Netherlands, one specialist) in support of the proposals submitted by Dr. Franclemont ; (2) a note by the Secretary, with reference to Dr. Franclemont's proposal for the validation of the name *Tinea* as from Linnaeus, 1758, drawing attention to a paper published in 1943 in which two specialists had sought to bring forward the generic name *Tinaea* Geoffroy, 1762 ; (3) a note prepared by Dr. J. G. Franclemont in answer to criticisms made by Dr. Jiří Paclt of his proposal for the suppression under the Plenary Powers of the generic name *Phalaena* Linnaeus, 1758 ; (4) a letter from Dr. Franclemont making certain comments on the proposals relating to the names *Bombyx* and *Pyralis* submitted by Dr. Paclt. The communications so received are reproduced in the immediately following paragraphs.

13. Support for Dr. Franclemont's proposals received from Wm. T. M. Forbes (New York State College of Agriculture in Cornell University, Ithaca, N.Y., U.S.A.) : On 18th August 1952 Professor Wm. T. M. Forbes (*New York State College of Agriculture in Cornell University, Ithaca, N.Y., U.S.A.*) addressed to the Office of the Commission the following letter in support of the application submitted by Dr. Franclemont (Forbes, 1952, *Bull. zool. Nomencl.* 9 : 149) :—

I am writing you, at Dr. Franclemont's suggestion, in connection with his paper on the Linnean subgenera and their type species.

I feel that his solution, both as to names and as to type species, is highly advisable, with the possible exception of the name *Alucita*, which has been used as nearly equally in two different families, that I think it might be thrown overboard, by whichever formal suspension of rules is practicable.

14. Support received for Dr. Franclemont's proposals from Frederick H. Rindge (The American Museum of Natural History, New York) : On 4th September 1952, Dr. Frederick H. Rindge (*The American Museum of Natural History, New York*) addressed to the Office of the Commission the following letter in support of the application submitted by Dr. Franclemont (Rindge, 1952, *Bull. zool. Nomencl.* 9 : 151) :—

Recently I received a letter from Mr. Franclemont of the United States National Museum informing me that you are interested in obtaining the opinions of qualified workers on his paper entitled "The Linnaean Subgeneric Names of *Phalaena* (Lepidoptera, Heterocera)". As I have charge of the Lepidoptera collection here at the American Museum of Natural History, and as I work primarily with the moths, I believe I would qualify.

I agree with the conclusions expressed in the above-mentioned paper, and unless additional information is brought forth, I certainly hope that the Commission will take action on this question as indicated in this paper. Such action would certainly lead to a uniformity in the application of names in the Lepidoptera, and it would definitely lead to stability.

15. Support for Dr. Franclemont's proposals received from A. Diakonoff (Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands) : On 26th September 1952, Dr. A. Diakonoff (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) addressed the following letter to the Office of the Commission in support of Dr. Franclemont's application (Diakonoff, 1952, *Bull. zool. Nomencl.* 9 : 151) :—

Upon an invitation of Mr. Franclemont (addressed to Mr. Lempke) I am glad to comment upon his paper on the Linnean "Subgeneric Names", recently republished in the *Bulletin of Zoological Nomenclature* (6 : 304—312).

As you perhaps remember, I had the pleasure of discussing this paper with you during your visit to our Museum in August 1951; at that time I expressed myself entirely in agreement with Mr. Franclemont's views, and thought that a proposal to the International Commission on the lines recommended by Dr. Franclemont would be most useful, and would contribute to uniformity and stability of the nomenclature of Lepidoptera.

In the meantime I discovered that the validity of the well-known and familiar generic name *Tortrix*, and with it of the family name TORTRICIDAE (with which group I am especially concerned!) is seriously endangered. Dr. Obraztsov of Sea Cliffe, N.Y., draws my attention to the fact that under the present Rules the first valid author of *Tortrix* appears to be not Thunberg, but Scopoli, 1777; consequently *Tortrix* might fall as a synonym of some horrible old name such as, e.g., *Heterognomon* Lederer, 1859 (*Wien. ent. Monatsch.* 3 : 242). To prevent this disaster I even more warmly advocate accepting Mr. Franclemont's proposals.

As to the familiar generic name *Tinea*, I may draw your attention to the paper by A. Steven Corbet and W. H. T. Tams published in the 1943 (*Entomologist* 76 (961) : 113—114), where those authors replace the name *Tinea* Linnaeus by that of *Tinaea* Geoffroy, 1762. Their view (and the changed spelling *Tinaea* and TINAEIDAE) has been accepted by several authors (among whom by myself), but it unavoidably leads to more confusion. The acceptance of Mr. Franclemont's proposals would put an end to this instability as well.

16. Support for Dr. Franclemont's proposals received from Cyril F. dos Passos (Research Associate, The American Museum of Natural History, New York) : On 14th October 1952, Dr. Cyril F. dos Passos (*Research Associate, The American Museum of Natural History, New York*) communicated to the Office of the Commission his views on the application submitted by Dr. Franclemont in the following terms (dos Passos, 1952, *Bull. zool. Nomencl.* 9 : 153—154) :—

I desire to support the application made to the International Commission on Zoological Nomenclature by Dr. John G. Franclemont (1952, *Bull. zool. Nomencl.* 6 : 304—312) to suspend the rules, to validate the following generic names of Linnaeus as of 1758 : *Bombyx*, *Noctua*, *Geometra*, *Pyralis*, *Tortrix*, *Tinea* and *Alucita*, to designate their type species, to suppress the generic name *Phalaena* Linnaeus, 1758, to give preference to its typical subgenus *Noctua* Linnaeus, 1758,

to declare NOCTUIDAE the correct name for the family, to validate one generic name of Linnaeus as of 1767, i.e., *Attacus*, and designate its type species, as set forth in detail in the said application, and in a paper published by Dr. Franclemont in 1950.

2. While *Opinion* 124 declares that the various subdivisions of genera published by Linnaeus in 1758, *Systema Naturae*, Tenth Edition, are not to be accepted as of that date as of subgeneric value under the rules, it was recognized that, if this *Opinion* would produce greater confusion than uniformity, the Commission would be prepared to consider individual cases submitted to them by the specialists concerned.

3. McDunnough's *Check List* (1938, 1939), which is in current use in North America and probably elsewhere, uses all the generic names involved in this application, as set forth by Dr. Franclemont, with the exception of *Noctua*, for which *Phalaena* is used. The generic names in question, with the exception of *Phalaena*, have been in constant use for a very long time. To upset their usage now would cause greater confusion than uniformity. While it is unfortunate to suppress one of the three original generic names (*Phalaena*) of Linnaeus, not to do so will only result in suppressing an almost equally well-known name (*Noctua*). There is, therefore, good reason for not adhering strictly to the rules in this case.

4. Dr. Jiri Paclt in the same number of the *Bulletin of Zoological Nomenclature* (6 : 313—315) under Commission's references Z.N.(S). 288 and Z.N.(S.)331 has made partial parallel applications for the proposed use of the Plenary Powers to designate *Phalaena mori* Linnaeus, 1758 to be the type species of *Bombyx* Fabricius, 1775 and to designate *Phalaena Pyralis farinalis* Linnaeus, 1758 to be the type species of *Pyralis* Fabricius, 1775, the only difference between Dr. Franclemont's application and that of Dr. Paclt in these two cases being that in the former application these generic names are credited to Linnaeus, 1758, rather than Fabricius, 1775, as in the latter application. While the work of Fabricius was the first in which these names were used in a strictly generic sense, Dr. Franclemont (1952, *tom. cit.* : 306) has pointed out that, if these names were to be accepted from this work, considerable confusion would arise when all the generic names involved in his application are considered. Consequently it is believed advisable to make a clean sweep of all later uses of these names and settle them all as of 1758. Commission's references Z.N.(S.)462, Z.N.(S.)288 and Z.N.(S.)331 could well be consolidated and considered as one.

5. In *Opinion* 158 the Commission considered such a case, as are involved in the three above-mentioned applications, recognized that an exception should be made for *Locusta* Linnaeus, 1758, and designated

the type species. *Opinion* 124 gives ample authority for granting this application and the case considered in *Opinion* 158 is a perfect precedent for a similar ruling in the instant case.

Literature Cited

Fabricius, Johann Christian

1775. *Systema Entomologiae, sistens Insectorum Classes, Ordines, Genera, Species, adiectis synonymis, locis, descriptionibus, observationibus*. Flensburg and Leipzig, Kortii, [32] + 832 pp.

Franclemont, John George

1950. The Linnaean Subgeneric Names of *Phalaena* (Lepidoptera, Heterocera). *J. New York ent. Soc.* **58** : 41—53

Linnaeus, Carolus [Carl von Linné]

1758. *Systema Naturae per Regna tria Naturae, secundum Classes, Ordines, Genera, Species, cum Characteribus, differentiis, synonymis, locis*. Editio decima, reformata. Stockholm, Laurentii Salvii, 1 : [4] + 824 pp.

1767. *Systema Naturae per Regna tria Naturae, secundum Classes, Ordines, Genera, Species, cum characteribus, differentiis, synonymis, locis*. Editio duodecima, reformata. Stockholm, Laurentii Salvii, 1 : [2] + 533—535, 356—357 [sic], 538, 359—360 [sic], 541—605, 506 [sic], 607—891, 902 [sic], 893—1328 + [36] pp.

McDunnough, James Halliday

1938. Check List of the Lepidoptera of Canada and the United States of America. Part I. Macrolepidoptera. *Mem. S. Calif. Acad. Sci.*, **1** : 1—272, 1—3 (corrigenda)

1939. Check List of the Lepidoptera of Canada and the United States of America. Part II. Microlepidoptera. *Mem. S. Calif. Acad. Sci.* **2** : 1—171

17. Support for Dr. Franclemont's proposals from José Oiticica Filho and R. Ferreira d'Almeida, Museu Nacional, Rio de Janeiro, Brasil : On 15th January 1953, Dr. José Oiticica Filho addressed a letter to the Office of the Commission, with which he transmitted

the following statement prepared jointly by himself and Dr. R. Ferreira d'Almeida, supporting the application submitted by Dr. Franclemont in the present case :—

Support for Dr. J. G. Franclemont's proposal for the validation, as subgeneric names, of the terms applied by Linnaeus in 1758 to subdivisions of the genus "Phalaena" (Class Insecta, Order Lepidoptera)

By JOSÉ OITICICA FILHO and R. FERREIRA D'ALMEIDA
(*Museu Nacional, Rio de Janeiro, Brasil*)

We have received Franclemont's paper "The Linnaean subgeneric names of *Phalaena* (Lepidoptera, Heterocera)", published in the Journal of the New York Entomological Society, Vol. 58, March 1950, pages 41—53, with a request to send our views either pro or con to the Commission in London.

We have to say that after a careful discussion of Franclemont's paper we arrived at the same conclusions. We do think that if the Commission validates the names as proposed by Franclemont greater stability and less confusion will result in the nomenclature of the Lepidoptera Heterocera.

We think also that the suspension of Rules and the use of Plenary Powers must be done very sparingly. But every time that a paper, like the one under discussion, is written to put order in a badly written *Opinion*, like *Opinion* 124, we think that, we are concerned not with a suspension of Rules, but indeed with a correction of the *Opinion* under discussion.

That is exactly what happened with *Opinion* 124. It has been written without a careful examination of the problems in connection with the Linnean subgeneric names in Lepidoptera. The result has been that, if the suppression of the subgeneric names for the Rhopalocera resulted in the stabilisation of their nomenclature, the same did not happen with the Heterocera subgeneric names.

We agree therefore with Franclemont's conclusions and we support them, but we believe that they do not really constitute a newly proposed suspension of the Rules, but are rather a correction of a not very well written *Opinion*, namely, the *Opinion* 124.

18. Note by Francis Hemming, Secretary to the International Commission on the name "Tinaea" Geoffroy, 1762 : On 15th October 1952 Mr. Francis Hemming, Secretary to the International Commission, submitted the following note (i) drawing attention to a paper by Corbet & Tams published in 1943 in which it had been suggested that the generic name *Tinaea* Geoffroy, 1762, should be introduced in place of *Tinea* which under *Opinion* 124 was not available as from Linnaeus, 1758, and (ii) pointing out that this solution was impracticable because the work in which the foregoing name had been published by Geoffroy had since been rejected by the International Commission for nomenclatorial purposes (Hemming, 1952, *Bull. zool. Nomencl.* 9 : 152) :—

On the consequential action in regard to the generic name "Tinaea" Geoffroy, 1762 (Class Insecta, Order Lepidoptera) which would be needed in the event of approval being given to Dr. John G. Franclemont's proposal that the name "Tinea" should be validated under the Plenary Powers as from Linnaeus, 1758

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

In a letter supporting Dr. John G. Franclemont's proposal (1952, *Bull. zool. Nomencl.* 6 : 304—312) that the terms used by Linnaeus in 1758 to denote groups of species of the genus *Phalaena* Linnaeus, 1758 should be validated, Dr. A. Diakonoff has drawn attention (1952, *Bull. zool. Nomencl.* 9 : 151) to a paper by the late Dr. A. Steven Corbet and Mr. W. H. T. Tams (1943, *Entomologist* 76 : 113—114), in which those authors, in an attempt to secure a stable foundation, if not for the name *Tinea*, at least for a name closely resembling it, brought forward the proposal that this genus should in future be known by the name *Tinaea* Geoffroy, 1762 (*Hist. abrég. Ins. Env. Paris* 2 : 25, 173), for which they then selected *Phalaena Tinea pellionella* Linnaeus, 1758, to be the type species.

2. Geoffroy in his *Histoire abrégée* did not apply the principles of binominal nomenclature, using instead the system formerly known as "binary nomenclature". At the time when Corbet & Tams wrote their paper, the question whether a generic name published by a "binary", but not binominal author should be accepted as possessing any status of availability in virtue of having been so published was *sub judice*. The Corbet/Tams proposal relating to the name *Tinaea* Geoffroy was therefore necessarily provisional from the standpoint of the *Règles* until the underlying question of principle had been settled. In 1948 the International Congress of Zoology ruled against

the acceptance of generic names published by non-binominal authors (1950, *Bull. zool. Nomencl.* 4 : 63—66), and the Commission, which already had before it an application for a ruling on the availability of generic names first published in Geoffroy's *Histoire abrégée*, thereupon ruled that those names were not available¹⁰; the Commission added at the same time that it would be prepared to entertain proposals for the validation of individual generic names in this book, where it could be shown that confusion would otherwise arise and asked the Secretary to confer with interested specialists on this subject (1950, *ibid.* 4 : 366—369).

3. It will be seen that the use of the Plenary Powers would be needed to secure the validation of the name *Tinaea* Geoffroy, 1762, just as it would to provide a valid foundation for the name *Tinea* as from Linnaeus, 1758. From this point of view there is therefore nothing to choose between a proposal to validate *Tinaea* Geoffroy and one to validate *Tinea* Linnaeus. From the practical point of view the latter course has, however, important advantages, (1) because it would retain for this genus a name spelt in the traditional way (*Tinea*), avoiding the awkward and unaccustomed variant *Tinaea* and TINAEIDAE, and (2) because under it Linnaeus would become officially what he has long been unofficially regarded as being, namely, the author of this generic name.

4. Accordingly, my conclusion as between the two alternatives discussed above is that, if the Plenary Powers are to be used to regularise the position of this and the other important names covered by the application submitted to the International Commission by Dr. John G. Franclemont, the validation of *Tinea* as from Linnaeus, 1758, is greatly to be preferred to the validation, in its place, of *Tinaea* Geoffroy, 1762. I therefore recommend that, so far as this genus is concerned, the question on which consideration should be concentrated is whether in the interests of nomenclatorial stability the Plenary Powers should be used to validate the name *Tinea*, as of subgeneric status, as from Linnaeus, 1758, with *Phalaena Tinea pellionella* Linnaeus, 1758, as type species. In the event of that proposal being approved the only action that would be called for, as regards the name *Tinaea* Geoffroy, 1762, would be to place it upon the *Official Index of Rejected and Invalid Generic Names in Zoology*, where, being an invalid name, it properly belongs.

19. Note by J. G. Franclemont in answer to the criticisms by J. Paclt of his proposal for the suppression under the Plenary Powers of the generic name "Phalaena" Linnaeus, 1758 : On 21st August 1952, Dr. J. G. Franclemont communicated to the Office of the Commission the following note in which he replied to the criticisms

¹⁰ See Footnote 5.

made by Dr. Jiří Paclt of the proposal which he had submitted for the suppression under the Plenary Powers of the generic name "*Phalaena* Linnaeus, 1758 (Franclemont, 1952, *Bull. zool. Nomencl.* 9 : 149—150) :—

**On the proposed use of the Plenary Powers to suppress the generic name "*Phalaena*" Linnaeus, 1758 (Class Insecta, Order Lepidoptera) and to validate, as of subgeneric status, certain terms then used by Linnaeus for subdivisions of that genus :
reply to certain criticisms made by Dr. Jiří Paclt**

By JOHN G. FRANCLEMONT

(United States Department of Agriculture, Agricultural Research Administration, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.)

I have seen Dr. Paclt's objection (Paclt, 1952, *Bull. zool. Nomencl.* 9 : 147—148)¹¹ to my proposal (Franclemont, 1952, *ibid.* 6 : 304—312) for a use of the Plenary Powers to validate the names used for the subgenera of *Phalaena* by Linnaeus in 1758¹². I feel that he has misunderstood the intent of my proposal. I do not wish to cancel or modify *Opinion* 124 ; I am merely acting within the intent of the published meaning of the *Opinion*, wherein it is stated : ". . . , but if any group of specialists finds that because of the literature on said group this *Opinion* will produce greater confusion than uniformity, the Commission is prepared to take up individual cases under the arguments which may be submitted". If the Commission were to act favourably on these names, it would not impair *Opinion* 124 or its subsequent revision at Paris in 1948 ; it would not involve any names but those used as subgeneric categories by Linnaeus under *Phalaena* ; all other names, no matter what their status in Linnaeus, 1758, lie outside the boundaries of the question under consideration.

I cannot agree with the statement that ". . . , with few exceptions these terms are generally accepted as generic names either as from Fabricius, 1775 (*Syst. Ent.*) or from Denis and Schiffermüller, 1775 (*Ankünd. syst. Werkes Schmett. Wienergegend*)". I think the reverse is true, for they are and were generally credited to Linnaeus with few exceptions. Fabricius does not credit the names to Linnaeus, but this can be readily understood because he has modified the application of the names in some cases, and he rather fancied himself as the originator of a new system. Denis and Schiffermüller credit the names

¹¹ Dr. Paclt's communication has been reproduced in paragraph 6 of the present *Opinion*.

¹² The application containing these proposals by Dr. Franclemont has been reproduced in paragraph 5 of the present *Opinion*.

to Linnaeus. The *Dictionnaire d'Histoire Naturelle* edited by d'Orbigny breaks with Latreille, who credited almost everything to Fabricius, by crediting the names to Linnaeus. Sherborn (*Index Animalium*, Pars prima (1758—1800) : 740) credits the names to Linnaeus and says : “. . . apparently used in a subgeneric sense”. The workers in the United States have always thought of the names as originating with Linnaeus. Staudinger, 1901, credits them to Linnaeus, but cites them from the 12th Edition instead of the 10th Edition of the *Systema Naturae*. As we all know, there was considerable discussion about whether to start with the Tenth or the Twelfth Edition, and it was the present Code that established the tenth edition as the starting point.

With regard to *Alucita* Fabricius, 1775 ; as I have pointed out, this was used for twenty species, part of which were included by Linnaeus under *Tinea* in 1758 and 1767, but none that he included under *Alucita*. The type species suggested by Dr. Paclt is not included by Fabricius ; it is under *Pterophorus* Fabricius, and this name must now date from Fabricius, 1775, because Geoffroy's work in which this name is first proposed is not binominal. Walsingham in the *Biologia centrali-americana*, Insecta, Lepidoptera-Heterocera 4 : 89, 1911, pointed out the two different uses of *Alucita* and selected as the type of *Alucita* Fabricius (nec *Alucita* Linnaeus) *Phalaena Tinea DeGeerella* (= *Alucita degeerella* (Linnaeus)).

With regard to *Phalaena* and *Noctua* ; see Article 9, which states that if a genus is divided into subgenera the name of the typical subgenus must be the same as the name of the genus. One of the subgeneric names used by Linnaeus in 1758 must be the typical subgenus of *Phalaena*. Barnes and Benjamin in the 1923, *Contributions to the Natural History of the Lepidoptera of North America* 5 (Part 2) : 55 have demonstrated that *Phalaena* Linnaeus, 1758, and *Noctua* Linnaeus, 1758, both proposed as new and with *Noctua* as a subgeneric category, are isogenotypic with *Phalaena Noctua typica* Linnaeus, 1758, as type (see Article 30, Rule (b)).

It comes as something of a surprise to learn that it was a well established practice to ignore the subgeneric names of *Phalaena* proposed by Linnaeus in 1758 and 1761, see my comments above on crediting of these names. The names were anything but ignored, they were used all or in part by all workers and credited to Linnaeus either directly or indirectly. Likewise to place the usage of *Phalaena* in the same class as that of *Papilio* is, to me, a misrepresentation of the facts, because *Phalaena* was all but abandoned in the early 1800's and the subgeneric terms, quite unlike those of *Papilio*, came to have more use than the generic term.

I would take issue with “ (as published in the combination *Phalaena typica*) ”, the original combination as published is “*P. Noctua typica*”,

Phalaena being abbreviated. I think we should be absolutely accurate in citing original combinations ; even if parts are suppressed by the action of the Commission, in such cases we should refer to the *Opinion* in which the suppression is made.

Finally with regard to the names NOCTUIDAE, AGROTIDAE and PHALAENIDAE ; in my original paper I made some mention of the usage of these names. I have tried to find some basis for Dr. Paclt's statement that AGROTIDAE has been used in Europe for decades. The name seems to have had no vogue after Grote suggested the change in 1895 ; the present usage dates from Tams, 1935. Boursin was apparently the first worker on the Continent to change from NOCTUIDAE to AGROTIDAE, and this was in 1936. Kozhantshikov in 1937 (*Faune de l'URSS, Insectes, Lépidoptères* 13 (No. 3)) used NOCTUIDAE. Warren and Draudt in Volume 3 and Supplement of Seitz's *Grossschmetterlinge der Erde* published from 1909—1914 and 1931—1938 use NOCTUIDAE. Eckstein in 1920 in *Die Schmetterlinge Deutschlands Band 3*, uses NOCTUIDAE, so does Gaede in *Die Tierwelt Deutschlands, 14, Schmetterlinge, oder Lepidoptera Part 2 Nachfalter (Heterocera). Macrolepidoptera* ". Bourgogne in the *Traité de Zoologie*, Vol. 10, fascicule 1 published in 1951 uses NOCTUIDAE, so does Viette, also of the Paris Museum, use NOCTUIDAE in his recent papers. Bang-Haas used NOCTUIDAE in his *Novitates Macrolepidopterologicae*, Vol. 1—5 published from 1926—1930. The *Zoological Record* did not change from NOCTUIDAE to AGROTIDAE until Vol. 81 for 1944 published in 1947 ; the separate Insecta part appeared a year early, 1946. Perhaps Dr. Paclt can cite the works I have overlooked, not that the above list is complete ; it merely represents the titles of works which are on my desk.

20. Comment by J. G. Franclemont on the proposal by J. Paclt for the recognition of the generic names " Bombyx " Fabricius, 1775, and " Pyralis " Fabricius, 1775 : On 18th September 1952, Dr. J. G. Franclemont addressed a letter to the Office of the Commission in which, *inter alia*, he commented as follows on the proposals submitted by Dr. Jiří Paclt in favour of the recognition of the generic names *Bombyx* Fabricius, 1775, and *Pyralis* Fabricius, 1775 (Franclemont, 1952, *Bull. zool. Nomencl.* 9 : 154—155) :—

In Part 10 of Volume 6 of the *Bulletin of Zoological Nomenclature* just received, I note a number of requests for use of the Plenary Powers of the Commission by Dr. Paclt. I am submitting the following comments on them.

Dr. Paclt's application Z.N.(S.) 288 (pp. 313—314)

Dr. Paclt's remarks about *Sericaria* are, I think, incorrect. The name was first used in the vernacular *Sericaire* [sic!], by Latreille in 1825 (*Familles naturelles du Règne Animal*, p. 474) in a descriptive key, but the name is coupled with *Notodonte* [sic!] without any means given for separating them. The Berthold 1827 work (Latreille's *Natürlich Familien des Thierrichs*) is merely a translation into German of the Latreille 1825 work. On page 480 we find the same key, the same coupling of the two names, but now in the Latin form as *Notodonta* and *Sericaria* [sic!]. There are no included species in either case. Since no way is provided to distinguish *Notodonta* from *Sericaria*, I do not regard the Berthold "proposal" of the name as falling within the meaning and intent of the *Règles* and *Opinions*. *Sericaria* is defined by Latreille in Cuvier, 1829 (*Le Règne Animal*, ed. 2, Vol. 5, p. 404), and there he includes a single species, "*Bombyx dispar* Fabricius", the Gypsy Moth.

Dr. Paclt's application Z.N.(S.) 331 (pp. 314—315)

I have commented elsewhere (1952, *Bull. zool. Nomencl.* 6 : 310)¹³ that *Pyrallis* Fabricius, 1775, is equal to *Tortrix* Linnaeus, 1758, and that it does not contain *farinalis*, the species that Dr. Paclt would have the Commission declare as type species.

21. Submission to the Commission by the Secretary of a note on the procedure proposed to be adopted in reaching a decision on the group of applications involved in the present case : In March 1954 Mr. Hemming, as Secretary, submitted to the International Commission a note in which, after describing the interlocking and mutually irreconcilable character of certain of the applications involved in the present case and giving particulars of the communications which had been received from specialists on various aspects of the foregoing applications, submitted the following note of the procedure which appeared to him, as Secretary, to afford the most convenient means for enabling the Commission to reach a series of orderly decisions on the complex of names involved in the present case :—

In the circumstances described above, I have, as Secretary, given careful consideration as to the manner in which the present case can most conveniently be submitted to the Commission for decision. The conclusion which I have reached is that the most convenient course—as well as the most correct course—in the circumstances will be to take a vote as between (1) Dr. Franclemont's comprehensive

¹³ For the passage here referred to see page 277 of the present *Opinion*.

proposal under *Opinion* 124 (Alternative "A") and (2) Dr. Paclt's counter-proposal relating to the name *Phalaena* Linnaeus (Alternative "B"). If Alternative "A" were to be adopted by the Commission that would carry with it not only the rejection of Dr. Paclt's counter-proposal relating to the name *Phalaena*, but also his proposals relating to the names *Bombyx* and *Pyralis*, which are in direct opposition to Dr. Franclemont's comprehensive proposal. If the Franclemont proposal were to be rejected by the Commission, a new situation would be created in which it would be necessary, in the light of the decision to retain the name *Phalaena*, to formulate separate proposals for each of the seven other names dealt with in the Franclemont proposal, and to provide an opportunity for specialists to comment upon the new proposals so formulated.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

22. Issue of Voting Paper V.P.(54)43 : On 24th March 1954 a Voting Paper (V.P.(54)43) was issued in which, in accordance with the procedural arrangements outlined in the paper by the Secretary quoted in paragraph 21 above, which was submitted to the Commission concurrently with the Voting Paper referred to above, the Members of the Commission were invited to vote "for the proposal relating to the name *Phalaena* Linnaeus, 1758, as set out either in ALTERNATIVE 'A' (i.e. the Franclemont proposal given in paragraph 3 on pages 311 and 312 of Vol. 6 of the *Bull. zool. Nomencl.*) or in ALTERNATIVE 'B' (i.e. the Paclt proposal given in paragraph 10 on page 148 of Vol. 9 of the *Bull. zool. Nomencl.*)". The document referred to above in connection with Alternative "A" is the application by Dr. Franclemont reproduced in paragraph 5 of the present *Opinion*, that referred to in connection with Alternative "B" being the counter-proposal by Dr. Paclt reproduced in paragraph 6 of the present *Opinion*.

23. The Prescribed Voting Period for Voting Paper V.P.(54)43 :
As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 24th June 1954.

24. Particulars of the Voting on Voting Paper V.P.(54)43 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(54)43 was as follows :—

(a) *In favour of "Alternative 'A'" (the Franclemont proposal specified in paragraph 22 above), nineteen (19) Commissioners (arranged in the order in which Votes were received) :*

Riley ; Holthuis ; Lemche ; Hering ; Vokes ; Bonnet ; Dymond ; Esaki ; Mertens ; Boschma ; Jaczewski ; Hemming ; Bradley (J.C.) ; do Amaral ; Hankó ; Pearson¹⁴ ; Stoll ; Cabrera ; Sylvester-Bradley ;

(b) *In favour of "Alternative 'B'" (the Paclt proposal specified on paragraph 22 above) :*

None ;

(c) *Voting Papers not returned :*

None.

25. Declaration of Result of Vote on Voting Paper V.P.(54)43 :
On 25th June 1954, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)43, signed a Certificate that the Votes cast were as set out in paragraph 24 above and declaring that the

¹⁴ Commissioner Pearson exercised in this case the right conferred by the Thirteenth International Congress of Zoology in Paris, 1948, under which a Commissioner may, if he so desires, signify his willingness to support the view or the majority view, of other members of the Commission (1950, *Bull. zool. Nomencl.* 4 : 50—51).

proposal submitted as Alternative "A" in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

26. Family-Group-Name Problems involved in the present case :

The determination of the family-group names involved in the present case formed part of the proposal submitted by Dr. Franclemont in the present case and his proposals under this head, in common with the other proposals included in Dr. Franclemont's application, were approved by the Commission by its Vote on Voting Paper V.P.(54)43. At the time of the submission of that application the *Official List of Family-Group Names in Zoology* had not as yet been established by the International Congress of Zoology and Dr. Franclemont had not included in his application particulars as to the relative dates of publication of the family-group names concerned, this information not forming at that time an essential portion of any such application. The position was, however, radically changed by the action taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to redefine the rules governing family-group names. Accordingly, after the close of the voting on the Voting Paper referred to above, Mr. Hemming, as Secretary to the Commission, initiated consultations with Dr. Franclemont and other specialists with a view to preparing the material needed to enable the Commission to complete this part of its decision in the present case. At the conclusion of these consultations Mr. Hemming prepared the following paper which he submitted to the Commission on 10th October 1956 :—

Family-group-name problems involved in the decision under the vote
taken on Voting Paper V.P.(54)43 to validate as of subgeneric
status as from Linnaeus, 1758, certain names in the Order
Lepidoptera (Class Insecta) originally published as terms
for groups of species within the genus "Phalaena"
Linnaeus, 1758 or 1767

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

The object of the present paper is to bring to the attention of, and to obtain decisions from, the International Commission on Zoological

Nomenclature regarding the family-group-name problems involved in an application for the validation as subgeneric names of certain terms used by Linnaeus in 1758 and 1767 for groups of species of the genus *Phalaena* Linnaeus, 1758 (Class Insecta, Order Lepidoptera) made under the invitation issued through the Ruling given in *Opinion* 124 on which, so far as the other questions involved are concerned, a decision was taken by the Commission by its Vote on Voting Paper V.P.(54)43. The circumstances of this case are set out in the following paragraphs.

2. The application referred to above, which was submitted by Dr. J. G. Franclemont (now of *Cornell University, Ithaca, N.Y., U.S.A.*), was published in the *Bulletin of Zoological Nomenclature*. 6 : 304—312. The chief purpose of this application was to secure from the Commission a decision as to the priority to be assigned to seven generic names, each of which formed the basis on which the moths (other than the hawk-moths) were first divided into families by the early entomologists. The greatest confusion had existed for many years regarding the status of these fundamental names and it was evident that without the intervention of the Commission this confusion was likely to endure indefinitely. The difficulty in this case arose from the fact that the words of which these generic names were composed were first published by Linnaeus in 1758 as terms to denote groups of species within the genus *Phalaena* Linnaeus and in the early days—and indeed for long after—had been treated as having been published by Linnaeus as subgeneric names in the above year. The problem presented by these inter-generic-specific-name terms, which was one of general application and affected zoologists in numerous groups, early attracted attention by reason especially of the fact that in certain cases Linnaeus had employed two such terms simultaneously and it was impossible to interpret these terms as names of subgeneric rank. Ultimately, this matter was brought to the attention of the International Commission which gave a Ruling in *Opinion* 124 that terms of the foregoing type were not to be accepted as being of subgeneric status as from Linnaeus, 1758, but that, where it appeared that confusion and name-changing would result from the application of this Ruling, zoologists should submit proposals to the Commission for the validation of the terms concerned as being of subgeneric status as from Linnaeus, 1758. It was under this open invitation that the present application was submitted by Dr. Franclemont.

3. The terms which Dr. Franclemont asked the Commission to validate under its Plenary Powers as from Linnaeus, 1758, and which were so validated under the vote referred to in paragraph 1 above, are set out in Column (1) of the Table given below, together with the names of the species which at Dr. Franclemont's proposal were then designated by the Commission to be the type species (Column (2)) of the genera respectively concerned. At the same time Dr. Franclemont asked, and the Commission agreed, that the corresponding family names should also be validated in the form shown in Column (3).

Decisions regarding six terms originally published by Linnaeus in 1758 to denote groups of species within the genus "Phalaena" Linnaeus, 1758, taken by the International Commission on Zoological Nomenclature by its vote taken on Voting Paper V.P.(54)43

<i>Generic names validated under the Plenary Powers</i>	<i>Species designated as type species of genus specified in Col. (1)</i>	<i>Family name validated for genus specified in Col. (1)</i>
(1)	(2)	(3)
<i>Bombyx</i> Linnaeus, 1758	<i>Phalaena mori</i> Linnaeus, 1758	BOMBYCIDAE
<i>Noctua</i> Linnaeus, 1758	<i>Phalaena pronuba</i> Linnaeus, 1758	NOCTUIDAE
<i>Geometra</i> Linnaeus, 1758	<i>Phalaena papilionaria</i> Linnaeus, 1758	GEOMETRIDAE
<i>Tortrix</i> Linnaeus, 1758	<i>Phalaena viridana</i> Linnaeus, 1758	TORTRICIDAE
<i>Pyralis</i> Linnaeus, 1758	<i>Phalaena farinalis</i> Linnaeus, 1758	PYRALIDAE
<i>Tinea</i> Linnaeus, 1758	<i>Phalaena pellionella</i> Linnaeus, 1758	TINEIDAE
<i>Alucita</i> Linnaeus, 1758	<i>Phalaena hexadactyla</i> Linnaeus, 1758	ALUCITIDAE

4. It was part of Dr. Franclemont's proposal that the generic name *Phalaena* Linnaeus, 1758, should be suppressed by the Commission under its Plenary Powers, this being a necessary corollary to the validation of the names listed above. In addition, the proposed validation of the name *Noctua* as from Linnaeus, 1758, in the Class Insecta, involved the invalidation of *Noctua*, as the name for a genus in the Class Aves, but this gave rise to no difficulty as the name *Noctua* is not currently used as the name for a genus of birds. Dr. Franclemont's proposals on these points were approved by the Commission at the same time that it validated the names shown in the foregoing list.

5. In the same application Dr. Franclemont asked the Commission to validate one other intermediate term published by Linnaeus for a group of species within the genus *Phalaena*. This differed from those discussed in paragraph 3 above only by reason of the fact that it was first published in 1767 in the Twelfth Edition of the *Systema Naturae* instead of in 1758 in the Tenth Edition of that work. The name concerned was *Attacus*. This proposal also was approved by the Commission by its vote on Voting Paper V.P.(54)43.

6. At the time of the submission of Dr. Franclemont's application the *Official List of Family-Group Names in Zoology* had not as yet been established by the International Congress of Zoology and in consequence bibliographical references for the family-group names which Dr. Franclemont asked should be validated by the Commission were not furnished in his application. When the submission of a Voting Paper to the Commission on Dr. Franclemont's application fell due, consideration was given to the question whether as a matter of procedure the submission of that case should be deferred until it was possible also to submit proposals on the family-group bibliographical name problems involved or whether it would be better to obtain a decision at once on the principal issues involved in that application, problems relating to family-group names being deferred. Of these alternatives the second seemed to me to be the more satisfactory and, as Secretary, I therefore decided in favour of the immediate submission of a Voting Paper on the principal issued involved in this case. In pursuance of this decision Voting Paper V.P.(54)43 was therefore accordingly issued on 24th March 1954. The determination of the original references for the family-group names involved in the present case would, as I realised, involve a considerable expenditure of time because of the antiquity of the names concerned, coupled with the general confusion which (as explained in paragraph 2 above) existed in the literature relating to the generic names involved and therefore still more in that relating to the family group-names based on those generic names. After some preliminary correspondence with Dr. Franclemont, I formed the conclusion that the best course would be for the required investigation of the literature to be carried out in the Office of the Commission and for the results when available to be submitted to some outside authority before being placed before the International Commission. I accordingly invited Miss D. N. Noakes, B.Sc., of this Office to undertake the necessary search, a task for which she was particularly well fitted because of the parallel investigations which she was already making for the purpose of determining the original references for the family-group names based upon generic names placed on the *Official List* in the period up to the end of 1936. On satisfying myself that Miss Noakes's investigations had carried this matter as far as was possible with the resources at the disposal of this Office, I submitted the results which she had obtained to Professor Dr. E. M. Hering (*Zoologisches Museum, Humboldt-Universität zu Berlin*), who, I knew, was in a particularly good position to advise on this subject. In a letter dated 9th July 1956 Dr. Hering replied that he had been unable to detect any bibliographical references earlier than those cited in Miss Noakes's Report and he recommended that those references should be accepted as the oldest references for the names concerned. Those references have accordingly been accepted as the basis of the proposals now submitted. At the same time Dr. Hering drew attention to certain additional Erroneous Subsequent Spellings for some of the family-group names concerned which he suggested should be dealt with in the paper to be submitted to the Commission.

7. In submitting for the consideration of the International Commission the results obtained from the investigations described above I find it necessary as a preliminary to refer briefly to the works of certain authors who published terms based upon one or another of the generic names involved in the present case which were treated by some later authors and catalogue-compilers as being names published for taxa belonging to the family-group but which do not appear to me to have been so regarded by their original authors. At the same time I have added particulars of works by certain other authors where similar problems arise. The notes so prepared are annexed as Appendix 1.

8. Although the search of the literature has been laborious, no appreciable difficulty has been encountered in determining the place where, and the date on which, the family-group names concerned were first validly published. The stage at which difficulty was met with was in the preparation of the list of Erroneous Subsequent Spellings to be recommended for addition to the *Official Index*. Bearing in mind the instructions which have been given to me by the Commission at various times I have endeavoured to make the list now submitted as complete as possible, but the fact that for two only of the categories (family and subfamily) in the family-group have terminations been prescribed by the International Congress of Zoology is a cause of difficulty in cases where an author published a name as the name for a family but used for the name in question a termination which is incorrect as a termination for a family name but is nevertheless a termination which is commonly or occasionally used to denote a taxon of some other category—e.g. a tribe—in the family group. In general, when dealing with Erroneous Subsequent Spellings, I have proceeded on the assumption (a) that every name which is formed from an incorrect stem and which therefore could not in any circumstances be used as the name of a family-group taxon of any category ought to be placed on the *Official Index* but (b) that in general a name which is formed from the correct stem but for which an incorrect termination is employed should not be placed on the *Index* in cases where the termination used is a termination which is commonly or sometimes employed for taxa belonging to some category within the family-group, other than the category for which the name in question was actually published, e.g. where an author published a name as the name for a family but instead of employing the prescribed termination “-IDAE”, applied some termination such as “-IDI” which is commonly used as the termination for names of taxa of the rank of a tribe.

9. Subject to the foregoing explanations I now submit for the consideration of the Commission the recommendations for the addition of family-group names to the *Official List of Family-Group Names in Zoology* set out in Appendix 2 and those for the addition of names belonging to the same category to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* set out in Appendix 3.

10. There is a small number of objectively invalid generic names involved in the present case on which through inadvertence proposals

were not included either in Application Z.N.(S.) 462 (the application submitted in the present case) or with the Voting Paper (V.P.(54)43), with which that application was submitted to the Commission for decision. In accordance with the General Directive issued to the Commission by the International Congress of Zoology in regard to the disposal of objectively invalid names involved in particular applications, the names in question should now be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*. Particulars of those names, which are seven in number, are given in Appendix 4 to the present paper.

11. Of the generic names concerned, five are junior homonyms of names in the Order Lepidoptera which have been validated as from Linnaeus, 1758, by the vote taken by the Commission in the present case and the other two are junior objective synonyms of such names.

12. The names which are invalid as being junior homonyms themselves fall into three groups. Two are junior homonyms of names which were validly published for genera belonging to other groups in the Animal Kingdom, two are Erroneous Subsequent Spellings for other generic names of older date, and the fifth is little more than a reputed name. The two names which were published as names for genera in other parts of the Animal Kingdom are : (1) *Noctua* Gmelin, 1771 (Class Aves) ; (2) *Tortrix* Oppel, 1811 (Class Reptilia). No objection to the rejection of either of these names was received from interested specialists at the time when Public Notice was given of Dr. Franclemont's application. The first of these names is known not to be in use and it is believed that the second name has also been rejected in the group concerned. The question whether either of these names has been formally replaced or whether these names have merely disappeared in synonymy is now being investigated (on Commission File Z.N.(G.) 135), so that, if in either case a replacement name has been published, consideration may be given to the possible addition of that name to the *Official List*. The names which are mere Erroneous Subsequent Spellings for older names are : (3) *Geometra* Paetel, 1875 (Class Gastropoda) ; (4) *Tinea* Griffith, 1897 (Class Cestoda). The first of these is an Erroneous Subsequent Spelling for *Geomitra* Swainson, 1840, the latter for *Taenia* Linnaeus, 1758. The name *Taenia* Linnaeus was placed on the *Official List* by the Ruling given in *Opinion* 84, which was later confirmed under the Plenary Powers by the Ruling given in *Opinion* 272. The question whether corresponding action is required as regards *Geomitra* Swainson is now being investigated on the Commission File to which reference has already been made. The fifth and last of the names falling in this group is the name *Noctua* Linnaeus (or Karameschew)¹⁵, 1764 (Class Aves) which, as Dr. Franclemont showed in his application in the present case (1952, *Bull. zool. Nomencl.* 6 : 308, Note 4) possesses no

¹⁵ The question whether, in the case of theses for doctorates presented at the Universities of Uppsala and Lund in Sweden in the Eighteenth Century, new names should be attributed to the Professor or to the applicant for the doctorate is at present under investigation in Commission File Z.N.(S.) 1139.

status as it was published without a generic diagnosis and the single nominal species cited for it was at that time a *nomen nudum*.

13. The two generic names which are now recommended for addition to the *Official Index* on the grounds that they are junior objective synonyms of names of older date are : *Tinaea* Geoffroy (E.L.) (*Hist. abrég. Ins. Env. Paris* 2 : 25, 173) and *Orneodes* Latreille, 1796 (*Précis Caract. Ins.* : 148). The name *Tinaea* Geoffroy was brought forward in 1943 by Corbet & Tams in an effort to retain a somewhat similar name for the genus known as *Tinea* which had not then been validated by the Commission as from Linnaeus, 1758 (see Hemming, 1952, *Bull. zool. Nomencl.* 9 : 152).¹⁶ Even if this action had not since been taken by the Commission, the name *Tinaea* Geoffroy would nevertheless still have been invalid, for the Commission has ruling in *Opinion* 228 that the work by Geoffroy in which it was published is not available for nomenclatorial purposes, Geoffroy not having applied in it the principles of binominal nomenclature. The other name to be considered here, namely *Orneodes* Latreille, 1796 (which had been brought to the attention of this Office by Professor E. M. Hering), was, as first published in the *Précis*, the name of a nominal genus established without cited nominal species. The first author to cite such a species for this was Latreille himself who in [1802—1803] (*Hist. nat. Crust. Ins.* 3 : 418) so cited the single species *Phalaena hexadactylus* Linnaeus, 1758, which thus became the type species by monotypy. By one of the decisions taken by the Commission in the present case it validated the name *Alucita* as from Linnaeus, 1758, and designated the above species as the type species of that genus. By this action therefore the little-used name *Orneodes* Latreille has become a junior objective synonym of the much better known name *Alucita*.

14. I should add that in compiling the list of recommendations for the addition of names to the *Official Index of Rejected and Invalid Generic Names in Zoology*, I have deliberately omitted usages in the Lepidoptera by early authors—for example, by Denis & Schiffermüller (1775), Fabricius (1775) and others—of the seven generic names in that Order which the Commission has now validated under its Plenary Powers as from Linnaeus, 1758. I have taken this view because it is evident that those authors did not look upon themselves as introducing these names as new generic names of their own, looking upon themselves as doing no more than making use of names already introduced by Linnaeus.

15. The generic names discussed in paragraph 13 above (*Tinaea* Geoffroy, 1762, and *Orneodes* Latreille 1796) have both been taken as the basis for family-group names. These family-group names have both been included in Appendix 3 for addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology*, since in each case the family-group name in question is a junior objective synonym of the valid family-group name concerned, the respective type genera of these taxa having the same nominal species as type species.

¹⁶ The paper here referred to has been reproduced in paragraph 18 of the present *Opinion*.

16. Four of the Erroneous Subsequent Spellings for the family-group names involved in the present case were published in 1832—1836 in the *Lepidoptera (Lepidotteri)* volume of the *Fauna del Regno di Napoli* written by Oronzio-Gabriele Costa.¹⁷ This early work is of considerable interest, containing the original descriptions of a number of new species now recognised as being taxonomically valid, together with many original observations in regard to other species. From the point of view, however, of the bibliographer this volume is a veritable nightmare. In all it comprises 442 pages numbered in arabic numerals (together with the T.P. and preliminary matter numbered in Roman numerals in all, twelve pages.) The extraordinary feature of this work—and one which in my experience is fortunately unique—is that the main text with arabic pagination is divided into no fewer than forty-eight sections, each beginning with a page numbered “1” and bearing no indication (by way of sheet marks or otherwise) by which any one of the forty-eight pages numbered as page “1” can be distinguished from any of the forty-seven other pages bearing the same page number. This appears to me to be one of those cases where without the introduction of some adventitious aid the difficulties involved in making an intelligible citation for any given page are quite insuperable. Accordingly, in order to overcome these difficulties, I have allotted continuous pagination to the whole of the arabic-paged portion of this work, the page numbers so allotted being cited in square brackets, this having proved to be the only method of overcoming similar difficulties in providing an intelligible system of notation for the enumeration of the 500 plates in Jacob Hübner’s *Geschichte europäischer Schmetterlinge* and of the 491 plates in the *Sammlung exotischer Schmetterlinge* of the same author (Hemming, 1937, Hübner 1 : 107—136, 401—412). The key to the system of notation so adopted in the present case is given in Appendix 5¹⁸.

¹⁷ As the result of further consideration following a re-examination of the *Lepidotteri* volume of Costa’s *Fauna del Regno di Napoli* it was concluded that the family-group names used in that volume, though having the appearance in most cases of being badly formed Latinised versions of family-group names, should be regarded more properly as being vernacular names in the Italian language and as such ineligible for admission to the *Official Index of Rejected and Invalid Family-Group Names in Zoology*. The proposals in regard to these family-group names were accordingly withdrawn from the scope of the Voting Paper (V.P.(O.M.)(56)23) issued concurrently with the present paper by a Minute executed by the Secretary on 2nd November 1956. For the text of the Minute here referred to see paragraph 28 of the present *Opinion*.

¹⁸ Consequent upon the decision under which, as explained in Footnote 17 above, the proposals for the addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of certain family-group names included in the *Lepidotteri* volume of Costa’s *Fauna del Regno di Napoli*, the discussion of the bibliographical difficulties involved in that volume given in Appendix 5 of the above paper ceased to be relevant to the present case. It was accordingly decided to detach from the present *Opinion* the decision taken by the Commission in regard to the foregoing matter and to embody that decision in a *Direction (Direction 59)* concerned exclusively with that subject. Full particulars of the decision so taken are given in paragraph 32 of the present *Opinion*.

17. I have examined the applications independently submitted on various aspects of the present case by Dr. J. G. Franclemont (one application) and by Dr. J. Paclt (two applications) for the purpose of making sure that, when the Commission approved Dr. Franclemont's application, it took decisions also in regard to all the names dealt with in the applications submitted by Dr. Paclt, namely Application Z.N.(S.) 288 relating to the name *Bombyx* (Paclt, 1952, *Bull. zool. Nomencl.* 6 : 313—314) and Application Z.N.(S.) 331 relating to the name *Pyralis* (Paclt, 1952, *ibid.* 6 : 314—315). I find that the nominal species which Dr. Paclt recommended should be accepted as the type species of the foregoing genera, attributed, as he proposed to Fabricius, 1775, are in each case the species which the Commission has designated as the type species of the genus in question, as validated under the Plenary Powers with priority as from Linnaeus, 1758. Further, by the decision taken by the Commission the specific names concerned have now been placed on the *Official List of Specific Names in Zoology*. Fortunately, therefore, all the requisite action has already been taken.

18. The recommendations now submitted are that the International Commission on Zoological Nomenclature should :—

- (1) place on the *Official List of Family-Group Names in Zoology* the eight family-group names enumerated in Appendix 2 annexed hereto, each of which is the name of a family-group taxon having as its type genus a nominal genus, the name of which was validated by the Commission under its Plenary Powers by its vote on Voting Paper V.P.(54)43 ;
- (2) place on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* the invalid family-group names enumerated in Appendix 3 annexed hereto, each of which is an invalid name for one or other of the family-group taxa, the valid names for which it is proposed in (1) above should be placed on the corresponding *Official List* ;
- (3) place on the *Official Index of Rejected and Invalid Generic Names in Zoology* the invalid generic names enumerated in Appendix 4 annexed hereto, each of which is involved in connection with one or other of the generic names validated under the Plenary Powers in the vote taken on the Voting Paper referred to in (1) above.

APPENDIX 1

Particulars regarding certain reputed family-group names based upon generic names in the Order Lepidoptera which have been validated by the International Commission as from Linnaeus, 1758

1. *Leach (W.E.) : Article on "Entomology" published in 1815 in Volume 9 of Brewster's "Edinburgh Encyclopaedia"*

In the above article (which was published anonymously) Leach divided the Order Lepidoptera into three "Sections", namely :

Diurna (containing the butterflies); Crepuscularia (containing the hawk-moths and burnets); Nocturna (containing the rest of the moths). In the same paper he erected a large number of "Families", for each of which he gave a name based upon that of an included genus and having the termination "-IDA". Many of these names are the oldest available names for the families concerned, e.g. PAPILIONIDA (=PAPILIONIDAE), LYCAENIDA (=LYCAENIDAE), GEOMETRIDA (=GEOMETRIDAE), etc. In addition, Leach recognised a category between his "Section" and his "Family" a category which he called a "Tribe". These so-called "tribe" names which were also based upon the name of an included genus were given the termination "-IDES". Thus, in addition to his "Family" "TINEIDA" Leach recognised a "Tribe" which he called "TINEIDES", in which he included his "Family" TINEIDA and his "Family" NEMOPHORIDA. It is not clear in what light Leach regarded his so-called "Tribes", but, as the concept of the superfamily had not at that time been thought of, his "Tribe" cannot, it seems to me, be properly regarded as having been a category belonging to the family-group. I have therefore not included these "-IDES" names in the list of names proposed to be placed on the *Official Index*. (In passing, it may be noted that in one case Leach introduced a new name (ALUCITIDES) for a "Tribe" which he did not subdivide into two or more "Families". In this case the reasonable course appears to be to regard this name as having been given to the sole included family as well as to the "Tribe". The name in question is the oldest name for a family-group taxon based upon the generic name *Alucita* Linnaeus, 1758, and it has been accepted as such.)

2. Hübner (J.), *Verzeichniss bekannter Schmettlinge* [sic], 1816—[1825]

Hübner had an extremely complicated system of classification devised by himself for categories above the generic level and it is very difficult to interpret the units recognised by this author in terms of currently accepted supra-generic categories, for between the Order and the genus he recognised no fewer than four categories (Phalanx; Tribus; Stirps; Familia). The names adopted for taxa belonging to these categories were hardly ever based upon the name of a genus recognised by Hübner in this work. In the case, however, of one of the generic names dealt with in the present case (*Bombyx*) Hübner did take a generic name as the base for the name of one of his supra-generic categories, BOMBYCOIDES (*Verz.*: 199), but this appears to have been quite accidental, as Hübner did not place the genus *Bombyx* in the taxon which he named BOMBYCOIDES. In any case the taxon BOMBYCOIDES was ranked by Hübner as a "Tribus", the second category below the level "Order" and therefore the third category in the hierarchy above the genus (called a "Coitus" by Hübner).

Whatever importance Hübner attached to the category "Stirps" he certainly did not treat it as a taxon belonging to the family-group as currently understood. The name *BOMBYCOIDES* Hübner, [1820], is therefore not included in the list of names now proposed to be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*.

3. Rennie (J.), 1832, *Conspectus of the Butterflies and Moths of the British Isles*

Rennie divided the moths into five groups. To each of these groups he applied a name based upon a generic name and having the termination "-INA". The taxa so recognised were: SPHINGINA; BOMBYCINA; NOCTUINA; GEOMETRINA; TORTRICINA. It is not clear in what light Rennie views the groups so established but it is evident that they were much higher in rank than the family-group category. I have therefore not included these "-INA" names of Rennie's in the list of names recommended for addition to the *Official Index*.

4. Swainson (W.), 1840, in *Lardner's Cabinet Cyclopaedia, Insects*

In this article Swainson recognised families and subfamilies to which he applied names with the correct terminations. In addition, however, he recognised a category above the family level, the names for taxa of which he formed by adding the termination "-IDES" to the name of a genus previously recognised by him as the type genus of a family. These names resemble those used by Rennie with "-INA" terminations in that they were certainly not used for taxa within the family group. I have therefore excluded these names from the recommendations now submitted for the addition of names to the *Official Index*.

5. Stainton (H.T.), 1854, *Insecta Britannica, Lep. Tineina*

In the above work Stainton gave in the introduction a synopsis of his ideas as to the major classification of the moths. He recognised a large number of families (having correctly formed names with the termination "-IDAE") as belonging to the Sub-Order Heterocera. In addition, however, he recognised nine "Groups" into which he assembled the families which he recognised. These "Groups" were given names based upon the names of the type genera of included families and for each Stainton used the termination "-INA". His system was thus similar in essentials to that adopted by Swainson in 1840 (No. 4 above). For reasons similar to those explained in connection with Swainson's article I do not consider that Stainton's "Group" names can be accepted as names given to taxa of the family-group. I have therefore excluded them from the list of names recommended for addition to the *Official Index*.

6. *Certain other names occasionally listed as names given to taxa belonging to the family-group*

In addition to the names discussed in the preceding Sections, there are a few other names based upon the generic names here in question which are sometimes listed in catalogues as having been published for taxa belonging to the family group but which, as is clear from an inspection of the works in which they were published, were in fact looked upon by their original authors as names for Sub-Orders or categories of analogous rank rather than as names for taxa of the family-group category. Examples of such names are provided by the following names: BOMBYCARIA Haeckel, 1896; NOCTUIFORMES Seitz, [1907]. Names of this type have also been excluded from the list of names recommended for addition to the *Official Index of Rejected and Invalid Family Group Names in Zoology*.

APPENDIX 2

Names proposed for addition to the "Official List of Family-Group Names in Zoology"

- (1) BOMBYCIDAE (correction of BOMBYCIDES) Latreille, [1802—1803], *Hist. nat. gén. partic. Crust. Arachn. Ins.* 3 : 404 (type genus : *Bombyx* Linnaeus, 1758, as validated under the Plenary Powers)
 - (2) NOCTUIDAE (correction of NOCTUAELITES) Latreille, 1809, *Gen. Crust. Ins.* 4 : 191, 224 (type genus : *Noctua* Linnaeus, 1758, as validated under the Plenary Powers)
 - (3) GEOMETRIDAE (correction of GEOMETRIDA) [Leach], [1815], in Brewster's *Edinburgh Ency.* 9(1) : 134 (type genus : *Geometra* Linnaeus, 1758, as validated under the Plenary Powers)
 - (4) TORTRICIDAE (correction of TORTRICES) Latreille, [1802—1803], *Hist. nat. gén. partic. Crust. Arach. Ins.* 3 : 415 (type genus : *Tortrix* Linnaeus, 1758, as validated under the Plenary Powers)
 - (5) PYRALIDAE (correction of PYRALITES) Latreille, 1809, *Gen. Crust. Ins.* 4 : 192, 228 (type genus : *Pyralis* Linnaeus, 1758, as validated under the Plenary Powers)
- (NOTE: By its vote on Voting Paper V.P.(54)43 the Commission under its Plenary Powers decided in favour of the above spelling as against the spelling PYRALIDIDAE for the family-group name¹⁹.)
- (6) TINEIDAE (correction of TINEITES) Latreille, 1810, *Consid. gén. Ordre nat. Anim. Class. Crust. Arachn. Ins.* : 347, 363 (type genus : *Tinea* Linnaeus, 1758, as validated under the Plenary Powers)

¹⁹ See paragraph 22 of the present *Opinion*.

- (7) ALUCITIDAE (correction of ALUCITIDES) [Leach], [1815], *Edinburgh Ency.* 9 : 135 (type genus : *Alucita* Linnaeus, 1758, as validated under the Plenary Powers)
- (8) ATTACIDAE Burmeister, 1878, *Descr. Phys. Rép. Argentine* 5 : 468 (type genus : *Attacus* Linnaeus, 1767, as validated under the Plenary Powers).

APPENDIX 3

Names proposed for addition to the " Official Index of Rejected and Invalid Family-Group Names in Zoology "

1. *Family-group names based on the generic name " Bombyx " :*
- (a) BOMBYCIDES Latreille, [1892—1803] (an Invalid Original Spelling for BOMBYCIDAE)
- (b) Erroneous Subsequent Spellings for BOMBYCIDAE (correction of BOMBYCIDES) Latreille, [1802—1803]:
- (i) BOMBYCITES Latreille, 1809, *Gen. Crust. Ins.* 4 : 190, 216
- (ii) BOMBYXIA Rafinesque, 1815, *Analyse Nature* : 127
- (iii) BOMBYCODEA Burmeister, 1837, *Handb. Nat.* (2) : 618
- (iv) BOMBICINI Costa, 1832—1836, *Fauna Regn. Napoli, Lepidott.*: [118], [122]
- (v) BOMBYCES Horsfield & Moore, 1858—1859, *Cat. Lep. Ins. Mus. E. India Company* : 2, 281
2. *Family-group names based on the generic name " Noctua " :*
- (a) NOCTUALITES Latreille, 1809 (an Invalid Original Spelling for NOCTUIDAE)
- (b) Erroneous Subsequent Spellings for NOCTUIDAE (correction of NOCTUAE LITES) Latreille, 1809 :
- (i) NOCTUIDA [Leach], [1815], *Edinb. Ency.* 9 : 134
- (ii) NOCTUAEIDES Billberg, 1820, *Enum. Ins. Mus. Billberg.* : 85
- (iii) NOCTUACEA Burmeister, 1829, *De. Ins. Syst. nat.* : 27
- (iv) NOCTUELIDI Boisduval, 1829, *Europ. Lep. Index meth.* : 101
- (v) NOTTUINI Costa, 1832—1836, *Fauna Regn. Napoli, Lepidott.*: [118], [151]
- (vi) NOCTUITES Newman (E.), 1835, *Grammar Ent.* : 176
- (vii) NOCTUARIAE Zetterstedt, 1840, *Ins. lapp.* : vi, 932

- (viii) NOCTUARIA Gravenhorst, 1843, *Vergleich. Zool.* : 167
- (ix) NOCTUELIDES Duponchel, 1844, *Cat. méth. Lep. Europ.* : 145
- (x) NOCTUELITES Guenée, 1852, *Hist. nat. Ins.*, Lep. 5 : 1
- (xi) NOCTUES Swinhoe, 1890, *Trans. ent. Soc. Lond.* 1890 : 217

3. Family-group names based on the generic name " *Geometra* " :

- (a) GEOMETRIDA [Leach], [1815] (an Invalid Original Spelling for GEOMETRIDAE)
- (b) An Erroneous Subsequent Spelling for GEOMETRIDAE (correction of GEOMETRIDA) [Leach], [1815] : GEOMETRITES Newman (E.), 1835, *Grammar Ent.* : 175

4. Family-group names based on the generic name " *Tortrix* " :

- (a) TORTRICES Latreille, [1802—1803] (an Invalid Original Spelling for TORTRICIDAE)
- (b) Erroneous Subsequent Spellings for TORTRICIDAE (correction of TORTRICES) Latreille, [1802—1803] :
 - (i) TORTRICIDA [Leach], [1815], *Edinb. Ency.* 9 : 135
 - (ii) TORTRICIDES Billberg, 1820, *Enum. Ins. Mus. Billberg.* : 90
 - (iii) TORTRICI Costa, 1832—1836, *Fauna Regn. Napoli*, Lepidott. : [118]
 - (iv) TORTRICITES Newman (E.), 1835, *Grammar Ent.* : 179

5. Family-group names based on the generic name " *Pyralis* " :

- (a) PYRALITES Latreille, 1809 (an Invalid Original Spelling for PYRALIDAE)
- (b) Erroneous Subsequent Spellings for PYRALIDAE (correction of PYRALITES) Latreille, 1809 :
 - (i) PYRALIDA [Leach], [1815], *Edinb. Ency.* 9 : 135
 - (ii) PYRALIDES Billberg, 1820, *Enum. Ins. Mus. Billberg.* : 92
 - (iii) PYRALIDI Costa, 1832—1836, *Fauna Regn. Napoli*, Lepidott. : [118]
 - (iv) PYRALIDIDES Zetterstedt, 1840, *Ins. lapp.* : vi, 969
 - (v) PYRALOIDI Guenée, 1845, *Europ. microlep. Index meth.* : 57
 - (vi) PYRALIDOIDAE Herrich-Schaeffer, 1856, *Syst. Bearbeit. Schmett. Europ.* 6 Syst. Lep. : 41
 - (vii) PYRALIDIDAE Lederer, 1863, *Wiener Ent. Monatschr.* 7 : 257
 - (viii) PYRALES Swinhoe, 1890, *Trans. ent. Soc. Lond.* 1890 : 268

6. *Family-group names based on the generic name "Tinea" :*

- (a) TINEITES Latreille, 1810 (an Invalid Original Spelling for TINEIDAE)
- (b) Erroneous Subsequent Spellings for TINEIDAE (correction of TINEITES) Latreille, 1810 :
- (i) TINEIDA [Leach], [1815], *Edinb. Ency.* 9 : 133
 - (ii) TINEAEDES Billberg, 1820, *Enum. Ins. Mus. Billberg.* : 93
 - (iii) TINEODEA Burmeister, 1837, *Handb. Nat.* (2) : 618
 - (iv) TINEACEA Zeller, 1839, *Isis* (Oken) 1839 : col. 168
 - (v) TINEARIAE Zetterstedt, 1840, *Ins. lapp.* : vi, 990
 - (vi) TINEARIA Gravenhorst, 1843, *Vergleich. Zool.* : 167
 - (vii) TINEA Guenée, 1845, *Europ. microlep. Index meth.* : 68

7. *Family-group names based on the generic name "Alucita" :*

- (a) ALUCITIDES [Leach], [1815] (an Invalid Original Spelling for ALUCITIDAE)
- (b) Erroneous Subsequent Spellings for ALUCITIDAE (correction of ALUCITIDES) [Leach], [1815] :
- (i) ALUCITAEDES Billberg, 1820, *Enum. Ins. Mus. Billberg.* : 92
 - (ii) ALUCITITES Newman (E.), 1835, *Grammar Ent.* : 180
 - (iii) ALUCITINA Zeller, 1841, *Isis* (Oken) 1841 : col. 865

8. PHALAENIDAE (correction of PHALAENITES) Latreille, [1802—1803], *Hist. nat. gén. partic. Crust. Arach. Ins.* 3 : 411 (type genus : *Phalaena* Linnaeus, 1758) (invalid under Declaration 20 because name of type genus suppressed under the Plenary Powers by vote taken on Voting Paper V.P.(54)43)

9. PHALAENITES Latreille, [1802—1803] (an Invalid Original Spelling for PHALAENIDAE)

10. Erroneous Subsequent Spellings for PHALAENIDAE (correction of PHALAENITES) Latreille, [1802—1803] :

- (a) PHALAENIDES [Leach], [1815], *Edinb. Ency.* 9 : 134
- (b) PHALAENIDA [Leach], [1815], *Edinb. Ency.* 9 : 134
- (c) PHALENIDIA Rafinesque, 1815, *Analyse Nature* : 127
- (d) PHALAENAEDES Billberg, 1820, *Enum. Ins. Mus. Billberg.* : 88

- (e) PHALAEANOIDES Burmeister, 1829, *De Ins. syst. nat.* : 27
- (f) PHALAEANOIDEA Burmeister, 1837, *Handb. Ent.* (2) : 620
- (g) PHALAEANARIAE Zetterstedt, 1840, *Ins. lapp.* : vi, 953
- (h) PHALAEANOIDEA Gravenhorst, 1843, *Vergleich. Zool.* : 167
11. TINAEIDAE Corbet (A.S.) & Tams (W.H.T.), 1943, *Entomologist* **76** : 113—114 (type genus : *Tinaea* Geoffroy (E.L.), 1762) (invalid (i) because the name of the type genus was published in a work (*Hist. abrég. Ins. Env. Paris*) rejected for nomenclatorial purposes by the Ruling given in *Opinion* 228, and (ii) because its type genus has the same species as type species as *Tinea* Linnaeus, 1758 and the name is therefore a junior objective synonym of TINEIDAE (correction of TINEITES) Latreille, 1810, of which the latter genus is the type genus)
12. ORNEODIDAE (correction by Meyrick (1895, *Handb. brit. Lep.* : 441) of ORNEODIDES) Herrich-Schaeffer, [1843], *Syst. Bearbeit. Schmett. Europ.* **1** : 14 (type genus : *Orneodes* Latreille, 1796) (invalid because the type genus has as its type species the same species (*Phalaena hexadactyla* Linnaeus, 1758) as *Alucita* Linnaeus, 1758, the type genus of ALUCITIDAE (correction of ALUCITIDES) [Leach], [1815], of which therefore the above name is a junior objective synonym)
13. ORNEODIDES Herrich-Schaeffer, [1843] (an Invalid Original Spelling for ORNEODIDAE)

APPENDIX 4

Names proposed to be placed on the "Official Index of Rejected and Invalid Generic Names in Zoology"

Geometra Paetel, 1875, *Fam. Gatt. Moll.* : 86 (Class Gastropoda) (an Erroneous Subsequent Spelling for *Geomitra* Swainson, 1840, and a junior homonym of *Geometra* Linnaeus, 1758, as validated under the Plenary Powers)

Noctua Linnaeus, 1764, *Dissert. Acad. demonstr. Necess. promov. Hist. nat. Rossia* : 16 ; republished in 1767 in *Amoen-Acad.* **7** : 450) (Class Aves) (published without a diagnosis with only an undescribed included nominal species ; a junior homonym of *Noctua* Linnaeus, 1758, as validated under the Plenary Powers)

Noctua Gmelin (S.G.), 1771, *Nov. Comment. Acad. Sci. imp. petrop.* **15** : 447 (Class Aves) (a junior homonym of *Noctua* Linnaeus, 1758, as validated under the Plenary Powers)

Orneodes Latreille, 1796, *Précis Caract. Ins.* : 148 (Class Insecta, Order Lepidoptera) (a junior objective synonym of *Alucita* Linnaeus, 1758, as validated under the Plenary Powers)

Tinea Geoffroy (E.L.), 1762, *Hist. abrég. Ins. Env. Paris* **2** : 25, 173 (Class Insecta, Order Lepidoptera) (published in a work rejected by *Opinion* 228 as being one in which the author did not apply the principles of binominal nomenclature ; a junior objective synonym of *Tinea* Linnaeus, 1758, as validated under the Plenary Powers)

Tinea Griffith, 1897, *Trans. ophthal. Soc. U.K.* **17** : 225 (Class Cestoda) (an Erroneous Subsequent Spelling for *Taenia* Linnaeus, 1758 ; a junior homonym of *Tinea* Linnaeus, 1758, as validated under the Plenary Powers)

Tortrix Oppel, 1811, *Ann. Mus. Hist. nat.*, Paris **16**(95) : 377, 381 (Class Reptilia) (a junior homonym of *Tortrix* Linnaeus, 1758, as validated under the Plenary Powers)

APPENDIX 5

The “*Lepidotteri*” volume dated 1832—1836 of the work by Oronzio Gabriele Costa entitled “*Fauna del Regno di Napoli*”

Collation and Scheme for numbering the pages in a continuous series of Arabic numerals

.....

[**Note by the Secretary** : By the direction given in the Minute executed by the Secretary on 12th November 1956 (the text of which has been reproduced in paragraph 32 of the present *Opinion*) the decision taken by the International Commission (on Voting Paper V.P.(O.M.(56)23) on the questions relating to the *Lepidotteri* volume by Costa (O.G.) of the work entitled *Fauna del Regno di Napoli* raised in the present Appendix (Appendix 5) has been separated from the decisions on the other issues raised in that paper taken by the Commission (on the same Voting Paper) and has been recorded separately in a *Direction* (*Direction* 59). The document which formed Appendix 5

has been incorporated in *Direction 59*, and, in order to avoid repetition, has been excluded from the present *Opinion*.]

27. Issue of Voting Paper V.P.(O.M.)(56)23 : On 10th October, 1956 a Voting Paper (V.P.(O.M.)(56)23) was issued in which each Member of the Commission was asked to state (1) whether he agreed that, "in conformity with the General Directives relating to the recording on the various *Official Lists* and *Official Indexes* of decisions in regard to particular names and particular books issued to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948, and with the General Directive supplementary thereto issued to the Commission by the Fourteenth International Congress of Zoology, Copenhagen, 1953, (a) the entries as respects the family-group names involved in connection with the names of genera of the Order Lepidoptera (Class Insecta) validated under the Plenary Powers as from Linnaeus, 1758, by the vote taken by the Commission on Voting Paper V.P.(54)43 recommended in paragraph 18 of the paper bearing the Registered Number Z.N.(S.) 462 submitted by the Secretary simultaneously with the present Voting Paper [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 26 of the present *Opinion*] be made in the *Official List* and *Official Index* for the names of taxa belonging to the family-group as there proposed and that the other action there specified be also taken", and (2) that, if he did not agree as regards any given item, to indicate that item.

28. Withdrawal from the scope of Voting Paper V.P.(O.M.)(56)23 of the proposals submitted therewith for the addition to the " Official Index of Rejected and Invalid Family-Group Names in Zoology " of four family-group names published in the " Lepidotteri " volume by Costa (O.G.) in the work entitled " Fauna del Regno di Napoli " : On 2nd November 1956, Mr. Hemming, as Secretary, executed the following Minute in which for the reasons there explained he withdrew from the scope of Voting Paper V.P.(O.M.)(56)23 the proposals for the addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of four family-groups published in the *Lepidotteri* volume written by Costa (O.G.) in the work entitled *Fauna del Regno di Napoli* which had been submitted to the Commission in the paper bearing the Registered

No. Z.N.(S.) 462 concurrently with Voting Paper V.P.(O.M.) (56)23 :—

Withdrawal from the scope of Voting Paper V.P.(O.M.) (56)23 of the proposals submitted therewith in relation to four family-group names published in the "Lepidotteri" volume written by Costa (O.G.) in the work entitled "Fauna del Regno di Napoli"

By FRANCIS HEMMING, C.M.G., C.B.E.,
(Secretary to the International Commission on Zoological Nomenclature)

On 21st October 1956 Professor Tadeusz Jaczewski (*Institute of Zoology, The Polish Academy of Sciences, Warsaw*) addressed a letter to the Office of the Commission in which, with reference to certain proposals submitted with Voting Paper V.P.(O.M.) (56)23, he expressed the view that the family-group names used by Costa (O.G.) in the *Lepidotteri* volume of the work entitled *Fauna del Regno di Napoli* ought to be regarded as vernacular (Italian) names and not as names consisting of Latin or Latinised words.

2. Upon the receipt of Professor Jaczewski's letter I at once undertook a thorough re-examination of the book by Costa in question. Throughout that work—as was only to be expected from the date on which it was published—Costa consistently applied the principles of binominal nomenclature and the availability of generic and specific names used by him in it cannot be questioned. Both for generic names and for the names used for species (binomina) Costa consistently gave the name first in Italian and second in Latin, the Italian name being printed in Roman type, the Latin name being printed in italics. In the case of the names used for suprageneric taxa however Costa normally gave only one version and the question which it has been necessary to re-examine is the language to which the words used for these classes of name should be regarded as belonging. In considering this matter it is necessary to take account of the system of major classification adopted by Costa for the Lepidoptera. First, it must be noted that in common with many authors of his day Costa did not recognise Sub-Orders as such but divided the Order Lepidoptera into a number of major groups, applying to the category so recognised the name "Famiglia". These taxa were substantially equivalent to Sub-Orders, as will be seen from the fact that the "Famiglia prima" (: [6]) contained the whole of the butterflies and was thus identical with the modern Sub-Order Rhopalocera. In the case of the "Famiglia prima" Costa recognised only two genera and he did not interpose any family-group taxa between the "Famiglia" and the "Genere" in this case.

When we come to the moths we find that he recognised taxa belonging sometimes to one, sometimes to two, intermediate (family-group) categories. For his second "Famiglia" (: [91]), which corresponded broadly with the modern Sphingids, Costa recognised one such category which he called both by the name "Sezione" and by the name "Tribu". For the third "Famiglia" (: [118]), (which comprised the whole of the remainder of the moths) Costa adopted a two-level system. The lower of the categories so established was again termed a "Sezione" and the taxa so named are therefore of the same rank as those into which Costa had divided his "Famiglia II". The higher of the two categories within his "Famiglia III" was not given a distinctive name. Six such taxa were recognised the ten units of "Sezione" rank being distributed very unevenly between these major groups, four being placed in the first (Bombycini), two in the last (Tignuole) and one each in the remaining four groups. It has always seemed clear to me that the "Sezione" names should be regarded as Italian vernacular names and not as Latin or Latinised names, examples of names belonging to this group being provided by "Sfingidei" (: [92]) and "Terofori" (: [118]). When I considered this question prior to the submission to the Commission of the paper prepared in connection with Voting Paper V.P.(O.M.)(56)23 I took the view however that the names used by Costa for the major subdivisions of his "Famiglia III" ought to be regarded as being Latinised names. In the light of the re-examination which I have now carried out I have however reached the conclusion that these names also, like those used by Costa as "Sezione" taxa, ought to be regarded as being Italian vernacular names. I have formed this view, mainly on two grounds: (1) Having regard to the fact that Costa used Italian vernacular names and not Latin or Latinised names for taxa belonging to the categories which he called "Famiglia" and "Sezione" respectively, it is inherently unlikely that for the intermediate category (to which he gave no distinctive name) Costa would have adopted a different course by using Latin instead of Italian names; (2) Although the words "Bombycini", "Tortrici" and "Piralidi" have the appearance of being Latinised words, they might also with equal reason be regarded as being Italian words, while the names "Nottuini" and "Tignuole" can much more reasonably be regarded as being Italian words than as Latinised words. Under the Copenhagen Rules regarding family-group names a vernacular family-group name is not to be accepted, save in the special case where, in the opinion of specialists in the group concerned, this is specially desirable in the interests of nomenclatorial stability (1953, *Copenhagen Decisions zool. Nomencl.* : 35—36, Decision 53). No such special considerations arise in the present case, for none of the family-group names used by Costa are the first such names to have been based upon the generic names in question. I accordingly conclude that all the family-group names employed by Costa in the *Lepidotteri* volume of the *Fauna del Regno di Napoli* are vernacular (Italian) names, that in no case was the family-group name published by Costa the first such name to be published for a taxon having as its type genus the genus, the name of

which forms the stem of the family-group name in question and therefore that all the family-group names concerned must be regarded as possessing no status in zoological nomenclature.

3. Accordingly, as Secretary to the International Commission, I hereby withdraw from the scope of Voting Paper V.P.(O.M.)(56)23 the proposals submitted therewith for the addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of four-family-group names employed by Costa in the *Lepidotteri* volume of the *Fauna del Regno di Napoli*, namely the recommendations specified under the numbers 1(b)(iv), 2(b)(vi), 4(b)(iii) and 5(b)(iii) in Appendix 3 to the paper bearing the Registered Number Z.N.(S.) 462 submitted to the International Commission with Voting Paper V.P.(O.M.)(56)23.

29. The Prescribed Voting Period for Voting Paper V.P.(O.M.)(56)23 : As Voting Paper V.P.(O.M.)(56)23 was issued under the One-Month Rule, the Prescribed Voting Period closed on 10th November 1956.

30. Particulars of the Voting on Voting Paper V.P.(O.M.)(56)23, other than on the proposals withdrawn from the scope of that Voting Paper by the Minute executed by the Secretary on 2nd November 1956 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(56)23, other than on the proposals withdrawn from the scope of that Voting Paper by the Minute executed by the Secretary on 2nd November 1956 (the text of which has been reproduced in paragraph 28 of the present *Opinion*) was as follows :—

(a) *Affirmative Votes had been given by the following twenty-two (22) Commissioners (arranged in the order in which Votes received) :*

Holthuis ; Vokes ; Sylvester-Bradley ; Tortonese ; Hering ;
do Amaral ; Esaki ; Stoll ; Lemche ; Mayr ; Prantl ;
Riley ; Boschma ; Mertens ; Key ; Jaczewski ; Dymond ;
Cabrera ; Kühnelt ; Bonnet ; Hemming ; Bradley (J.C.) ;

(b) *Negative Votes :*

None ;

(c) *On Leave of Absence, one (1) :*

Bodenheimer ;

(d) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(e) *Voting Papers not returned, one (1) :*

Miller.

31. Declaration of Result of Vote on Voting Paper V.P.(O.M.)

(56)23 : On 12th November 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(56)23, signed a Certificate that the Votes cast were as set out in paragraph 30 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

32. Exclusion from the present " Opinion " of the portion of the decision taken on Voting Paper V.P.(O.M.)(56)23 which is concerned with the " Lepidotteri " volume by Costa (O.G.) of the work entitled " Fauna del Regno di Napoli " and incorporation in a " Direction " of the decisions in regard thereto taken on the foregoing Voting Paper : On 12th November 1956, immediately after having signed the Certificate referred to in paragraph 31 declaring the result of the vote taken on Voting Paper V.P.(O.M.)(56)23, Mr. Hemming executed the following Minute in which he gave directions that the portion of the decision taken on the

foregoing Voting Paper which related to certain family-group and generic names be incorporated in the same *Opinion* as that to be rendered for the purpose of giving effect to the decision on other parts of the same problem taken by the Commission by its vote on Voting Paper V.P.(54)43 but that the portion of the decision taken on the foregoing Voting Paper in relation to certain matters connected with the *Lepidotteri* volume by Costa (O.G.) of the work entitled *Fauna del Regno di Napoli* be rendered separately in a *Direction* :—

**Separation of the decisions taken on Voting Paper V.P.(O.M.)(56)23
in relation to the method to be followed in citing and in dating
for the purposes of zoological nomenclature the several
portions in which the “ Lepidotteri ” volume by Costa
(O.G.) of the work entitled “ Fauna del Regno di
Napoli ” was published from the decisions in
relation to certain family-group names
taken on the same Voting Paper**

MINUTE by FRANCIS HEMMING, C.M.G., C.B.E.,
(*Secretary to the International Commission on Zoological Nomenclature*)

I have this day had under consideration the question of the arrangements to be made for giving effect to the decisions taken by the International Commission in its vote on Voting Paper V.P.(O.M.)(56)23, having regard to the fact that, while the major part of those decisions are concerned with the status to be accorded to certain family-group names and generic names, one part is concerned with an entirely different type of subject, namely the method to be followed in citing and in dating for the purposes of zoological nomenclature the forty-eight separately-paged fragments which collectively constitute the *Lepidotteri* volume by Orenzio Gabriele Costa of the work entitled *Fauna del Regno di Napoli*.

2. I have come to the conclusion that the present is a case where the procedure to be adopted should follow the lines laid down by the Thirteenth International Congress of Zoology, Paris, 1948, when it directed that decisions by the International Commission on questions affecting the interpretation of the *Règles* are not to be embodied in *Opinions* dealing with the status of individual names but are to be rendered separately as *Declarations*. I am therefore of the opinion that, when the portion of the decision relating to family-group names and generic names taken by the Commission in its vote on Voting Paper V.P.(O.M.)(56)23 is embodied in the *Opinion* recording the decision

previously taken on Voting Paper V.P.(54)43 to validate under the Plenary Powers certain of the generic names on which the family-group names referred to above are based, the portion of the decision taken on the same Voting Paper which is concerned with the method to be followed in citing and in dating the various portions of the volume referred to in paragraph 1 of the present Minute should be excluded from that *Opinion* and that the portion of the decision so excluded should be rendered separately in a *Direction*.

3. Accordingly, as Secretary to the International Commission, I hereby direct that the decision taken by the Commission in its vote on Voting Paper V.P.(O.M.)(56)23 be divided into two portions in the manner indicated in paragraph 2 above, namely (a) that the portion relating to individual family-group names and to generic names be included in the *Opinion* embodying the decision previously taken on Voting Paper V.P.(54)43, in which certain of the generic names on which those family-group names are based were validated under the Plenary Powers and (b) that the portion of the decision relating to Costa's *Lepidotteri* volume of the *Fauna del Regno di Napoli* be rendered separately in a *Direction*. I further so direct that, in accordance with the General Directive issued to the International Commission by the Fourteenth International Congress of Zoology, Copenhagen, 1953, regarding the recording of the titles of works on the *Official List of Works Approved as Available for Zoological Nomenclature*, the *Direction* referred to above shall include a Ruling that the title of the foregoing volume by Costa, endorsed, both as to the method to be followed in citing the forty-eight fragments of which it is composed and as to the dates to be assigned to each of those fragments, in the manner prescribed in the decision taken by the Commission in its vote on Voting Paper V.P.(O.M.)(56)23, be entered on the above *Official List*.

33. Preparation of the Ruling given in the present "Opinion" :

On 16th November 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)43, as supplemented by the portion relating to family-group names and generic names of the decision taken by the Commission in its Vote on Voting Paper V.P.(O.M.)(56)23²⁰.

²⁰ Under the directions given in the Minute executed by the Secretary on 12th November 1956, the text of which has been reproduced in paragraph 32 of the present *Opinion*, the remaining portion of the decision taken by the Commission on Voting Paper V.P.(O.M.)(56)23 has been embodied in *Direction* 59, which is being published in the immediately following part of the present volume.

34. Original References : The following are the original references for the generic and specific names placed on the *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

- Alucita* Linnaeus, 1758, *Syst. Nat.* (ed.10) **1** : 542
- atlas*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 495
- Attacus* Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1(2)** : 808
- Bombyx* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 495
- farinalis*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 533
- Geometra* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 519
- Geometra* Paetel, 1875, *Fam. Gatt. Moll.* : 86
- hexadactyla*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 542
- mori*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 499
- Noctua* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 508 (Class Insecta)
- Noctua* Linnaeus, 1764, *Dissert. Acad. demonstr. Necess. promov. Hist. nat. Rossia* : **16** ; also 1767, *Amoen. Acad.* **7** : 450 (Class Aves)
- Noctua* Gmelin (S.G.), 1771, *Nov. Comment. Acad. Sci. imp. petrop.* **15** : 447
- Orneodes* Latreille, 1796, *Précis Caract. Ins.* : 148
- papilionaria*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 522
- pellionella*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 536
- Phalaena* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 495
- pronuba*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 512
- Pyralis* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 533

Tinaea Geoffroy (E.L.), 1762, *Hist. abrég. Ins. Env. Paris* **2** : 25, 173

Tinea Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 534

Tinea Griffith, 1897, *Trans. ophthal. Soc. U.K.* **17** : 225

Tortrix Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 530

Tortrix Oppel, 1811, *Ann. Mus. Hist. nat.*, Paris **16**(95) : 377, 381

viridana, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 530

35. The original references for the family-group names placed on the *Official List of Family-Group Names in Zoology* by the Ruling given in the present *Opinion* are as set out in Appendix 2 to the paper by the Secretary dated 10th October 1956 reproduced in paragraph 26 above. The corresponding references for the family-group names placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* by the same Ruling are as set out in Appendix 3 of the foregoing paper.

36. At the time of the submission of the original application involved in the present case the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

37. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

38. The present *Opinion* shall be known as *Opinion* Four Hundred and Fifty (450) of the International Commission on Zoological Nomenclature.

DONE in London, this Sixteenth day of November, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING